

AC 4616  
COUNTY OF DUMFRIES.

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THIRTIETH

# ANNUAL REPORT

UPON THE

*Health and Sanitary Condition of  
the County.*

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1920.

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BY

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*County Medical Officer.*

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DUMFRIES :  
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# REPORT.

## Population.

THE population of the County Landward for 1920 was 43,811. This is based on an enumeration made by the police of all areas, including Gretna and Eastriggs. The figures for the Districts are :—

Districts	1920.			1911 Census.	Acres.
	M.	F.	Total.		
Thornhill ...	5,741	6,134	11,875	11,710	214,968
Dumfries ...	3,937	4,377	8,314	8,555	78,503
Annan ...	6,118	6,637	12,755	10,515	83,865
Lockerbie ...	3,813	4,146	7,959	8,545	170,859
Langholm ...	1,455	1,453	2,908	3,242	136,113
County L'ward	21,064	22,747	43,811	42,567	684,308

## Births.

The total number of Births registered in the County Landward were 1249 (651 male, 598 female), an increase of 240 on the figure of the previous year. The rate per 1000 living was 28·509. The average rate for the previous ten years was 21·416. The figures for each District are :—

Districts.	M	F.	Total.	Birth-rate per 1000 persons living.
Thornhill ...	190	174	364	30·653
Dumfries ...	113	83	196	23·575
Annan ...	198	177	375	29·400
Lockerbie ...	114	125	239	30·028
Langholm ...	36	39	75	25·790
County Landward	651	598	1249	28·509

Of the 1249 births, 1094 were legitimate and 155 illegitimate. The proportion of legitimate births to married

women living between the ages of 15 and 45 was 286 per 1000. The figures for each of the Districts are :—

Districts.	Estimated number of married women living between 15 and 45.	Number of legitimate births.	Rate per 1000 married women living between 15 and 45
Thornhill ...	1078	324	300.56
Dumfries ...	699	166	237.48
Annan ...	1100	335	304.54
Lockerbie ...	702	203	289.17
Langholm ...	237	66	278.48
County L'ward	3816	1094	286.68

The proportion of illegitimate births to unmarried women and widows living between the ages of 15 and 45 was 25.79 per 1000, and the proportion to total births 124 per 1000. The figures for the Districts are :—

Districts.	Estimated number of unmarried women and widows living between 15 and 45.	Number of illegitimate births.	Rates per 1000 unmarried women and widows living between 15 and 45.	Proportion of illegitimate to 1000 total births.
Thornhill ...	1607	40	24.891	110
Dumfries ...	1164	30	25.773	153
Annan ...	1693	40	23.626	107
Lockerbie ...	1141	36	31.551	151
Langholm ...	404	9	22.277	120
County Landward ...	6009	155	25.794	124

The number of births intimated under the Notification of Births Acts were 1078, or 171 less than the number registered. The details for each District are :—

Districts.	Medical Practitioners notifying.	Midwives notifying.	Other Persons notifying.	Births notified.	Births intimated by Registrars.
Thornhill ...	8	2	...	310	364
Dumfries ...	13	1	3	147	196
Annan ...	13	4	...	324	375
Lockerbie ...	14	...	1	228	239
Langholm ...	6	...	...	72	75

Eleven midwives gave notice of their intention to practise during 1920—one at Wanlockhead, one in Kirk-

connel, five in the neighbourhood of Dumfries, one at Eastriggs, and three at Gretna. Seven of these notified 140 births—9 at Wanlockhead, 9 at Kirkconnel, 3 near Dumfries, 32 at Eastriggs, and 87 at Gretna. Six intimations of sending for assistance were received from Eastriggs and Gretna. The reasons given were:—

Post-partum hæmorrhage	...	...	...	1	ease.
Prolapsed cord	...	...	...	1	„
Rupture of cord	...	...	...	1	„
Rupture of perineum	...	...	...	1	„
Obliquity of uterus	...	...	...	1	„
Condition of child	...	...	...	1	„

One intimation of attendance on a case of Puerperal Fever was made. Among the 140 births notified two were still-births.

### Infant Welfare.

Under an Order of the Board of Health a combination of the five County Districts and Burghs of Annan, Sanquhar, Lochmaben, Lockerbie, Moffat, and Langholm was formed, and a scheme formulated and approved. Four Health Visitors were appointed, and commenced duty on 15th July. The first result of their appointment was a series of questions from certain of the Local Nursing Associations regarding the work, and more particularly whether it could not be done by the district nurses under them.

Conferences with representatives of ten Associations were commenced, and while these were going on three of the visitors obtained other appointments. It was resolved not to fill the vacancies until the results of the conferences showed whether this might be necessary. The ten Associations employed twelve nurses, but a considerable portion of the County had no Association and no nurse. A report was made on 20th November showing that at least thirteen or fourteen additional nurses would be required if the duties of District Nursing and Health Visiting (to include visits under the Notification of Births Acts, assistance in

School Inspections and following up of school children recommended for medical attention, visiting of Tuberculosis cases, &c.), were to be satisfactorily carried out. The formation of a County Nursing Association to co-ordinate the work, to help in establishing new Local Associations or extending the spheres of influence of existing Associations, to provide relief nurses, and give other assistance, is now under consideration. As the existing Local Associations have agreed that as far as possible their nurses should be employed in Health Visiting, the work is going on, but is not yet fully developed. One Health Visitor at present overtakes as much as possible of the work which cannot be done by the local nurses.

During the period 1st July to 31st December, 619 births were notified (335 male, 284 female). Of these, 28 were still-births and 20 were prematurely born. There were six pairs of twins; in two pairs both were male, in one both female, and in three they were one of each sex. One pair of twins were premature.

Three hundred and nine infants were visited and 57 revisited, as follows:—

1 Revisit in	30 cases ...	...	=	30
2 Revisits in	10 „ ...	...	=	20
3 „	8 „ ...	...	=	24
4 „	4 „ ...	...	=	16
5 „	3 „ ...	...	=	15
7 „	1 „ ...	...	=	7
9 „	1 „ ...	...	=	9

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121

making a total of 430 visits for the half-year.

The following conditions were noted:—

Eye discharging	...	...	...	20 cases.
Malnutrition	...	...	...	7 „
Digestive disturbances	...	...	...	6 „

Skin affections	...	...	...	...	4 cases.
Nasal obstruction	...	...	...	...	1 „
Nasal discharge	...	...	...	...	1 „
Abscess	...	...	...	...	1 „
Jaundice	...	...	...	...	1 „
Bronchitis	...	...	...	...	1 „
Hernia	...	...	...	...	1 „
Congenital abnormality	...	...	...	...	1 „

With regard to feeding :—

70.9	per cent.	were wholly breast-fed.
2.2	„ „	partially breast-fed.
9.3	„ „	fed on cow's milk.
1.9	„ „	fed on Allenbury's Food.
0.9	„ „	fed on Glaxo.
in 14.8	„ „	mode of artificial feeding not stated.

When the scheme is more fully developed the Visitor's or Nurses' activities will extend to children of older age, as well as to adults suffering from Tuberculosis, &c.

### Deaths.

The total number of Deaths registered, the transfers (in and out), and consequent adjustments were :—

Districts.	Deaths registered.	Transfers in.	Transfers out.	Adjusted figures.		
				Total.	M.	F.
Thornhill	... 154	16	2	168	79	89
Dumfries	... 170	17	79	108	58	50
Annan ...	... 158	12	17	153	68	85
Lockerbie	... 119	13	12	120	58	62
Langholm	... 36	2	1	37	22	15
County L'ward	637	60	111	586	285	301

The Registrar-General's figures for the five Districts summed up show a total of 56 transfers in, and 83 transfers out. Four deaths of Dumfriesshire residents in Cumberland are not included, and the deaths of individuals from



England and Ireland in Crichton Institution or at Gretna are not excluded. Admittedly this refusal to transfer over the Border is particularly unfair to the Dumfriesshire statistics, more especially when these are compared with the statistics of other Counties. The population is also under-estimated, the sum of the Districts being 39,804 instead of 43,811. The adjusted death-rate is therefore, according to the Registrar-General's figures, 15·400, and the corrected 13·751 per 1000, while according to the figures received in the Health Office, the adjusted rate should be 13·376, and the corrected 11·943.

The death-rates, crude, corrected for transfers, and also for age and sex distribution in the five Districts, are :—

Districts.			Crude death-rates.	Death-rates corrected for transfers.	Death-rates corrected also for age and sex distribution.
Thornhill ...	...	...	12·968	14·147	12·826
Dumfries ...	...	...	20·447	12·990	10·919
Annan ...	...	...	12·387	11·995	10·932
Lockerbie ...	...	...	14·951	15·077	13·642
Langholm ...	...	...	12·379	12·723	10·796
County Landward		...	14·539	13·376	11·943

The factors for correction of age and sex distribution are calculated on the age and sex distributions of the population at the Census 1911, and are :—

Thornhill ...	...	...	·9064
Dumfries ...	...	...	·8406
Annan ...	...	...	·9114
Lockerbie ...	...	...	·9048
Langholm ...	...	...	·8485
County Landward ...	...	...	·8929

The classification of deaths according to cause in each District, and the death-rates, corrected for transfers and age and sex distribution, are given in the two tables following :—



## DEATHS IN COUNTY DISTRICTS IN 1920.

CAUSE OF DEATH.	Thornhill.	Dumfries.	Annan.	Lock- erbie.	Lang- holm.	County L'wd.
Enteric Fever . . .	...	...	...	...	...	...
Typhus Fever . . .	...	...	...	...	...	...
Smallpox . . .	...	...	...	...	...	...
Measles . . .	2	...	2	1	...	5
Scarlet Fever . . .	1	...	...	...	...	1
Whooping-cough . . .	1	...	1	...	1	3
Diphtheria . . .	...	2	2	1	...	5
Influenza . . .	1	1	1	...	1	4
Erysipelas . . .	...	...	...	...	...	...
Pulmonary Phthisis . . .	12	6	13	8	...	39
Tuberculous Meningitis . . .	...	1	2	1	1	5
Abdominal Tuberculosis . . .	...	1	...	...	...	1
Other Tuberculous Diseases . . .	2	...	...	3	1	6
Malignant Diseases . . .	17	12	10	19	6	64
Rheumatic Fever . . .	...	...	4	...	...	4
Meningitis . . .	4	2	1	2	...	9
Organic Heart Disease . . .	23	6	15	15	4	63
Bronchitis . . .	15	4	5	4	...	28
Pneumonia (all forms) . . .	8	13	16	6	1	44
Other Respiratory Diseases . . .	4	3	1	...	...	8
Enteritis (under 2 years) . . .	2	2	3	2	...	9
Appendicitis . . .	...	1	...	...	...	1
Liver Diseases (not Malignant) . . .	1	2	...	...	...	3
Other Digestive Diseases (under 2) . . .	3	2	5	7	1	18
Nephritis (Bright's Disease) . . .	2	1	3	...	1	7
Puerperal Sepsis . . .	1	...	...	...	...	1
Other Diseases and Accidents of Pregnancy, &c. . .	...	...	...	1	...	1
Congenital Causes . . .	12	12	15	7	3	49
Violence (excluding Suicide) . . .	3	6	...	4	...	13
Suicide . . .	...	...	1	2	...	3
Other Defined Diseases . . .	52	26	50	35	15	178
Ill-Defined Diseases . . .	2	5	3	2	2	14
<b>TOTAL . . .</b>	<b>168</b>	<b>108</b>	<b>153</b>	<b>120</b>	<b>37</b>	<b>586</b>

## DEATH-RATES IN COUNTY DISTRICTS IN 1920.

(CORRECTED FOR AGE AND SEX DISTRIBUTION.)

CAUSE OF DEATH.	Thorn- hill.	Dum- fries.	Annan.	Lock- erbie.	Lang- holm.	County L'wd.
Enteric Fever . . .	...	...	...	...	...	...
Typhus Fever . . .	...	...	...	...	...	...
Smallpox . . .	...	...	...	...	...	...
Measles . . .	·153	...	·143	·114	...	102
Scarlet Fever . . .	·076	...	...	...	...	·020
Whooping-cough . . .	·076	...	·071	...	·292	·061
Diphtheria . . .	...	·202	·143	·114	...	·102
Influenza . . .	·076	·101	·071	...	·292	082
Erysipelas . . .	...	...	...	...	...	...
Pulmonary Phthisis . . .	·916	·606	·929	·909	...	795
Tuberculous Meningitis . . .	...	·101	·143	·114	·292	·102
Abdominal Tuberculosis . . .	...	·101	...	...	...	·020
Other Tuberculous Diseases . . .	·153	...	...	·341	·292	·122
Malignant Diseases . . .	1·298	1·212	·715	2·159	1·750	1·304
Rheumatic Fever . . .	...	...	·286	...	...	·082
Meningitis . . .	·305	·202	·071	·227	...	·183
Organic Heart Disease . . .	1·756	·606	1·072	1·705	1·167	1·284
Bronchitis . . .	1·145	·404	·357	·455	...	·571
Pneumonia (all forms) . . .	·611	1·314	1·145	·682	·292	·897
Other Respiratory Diseases . . .	·305	·303	·071	...	...	·163
Enteritis (under 2 years) . . .	·153	·202	·214	·227	...	·183
Appendicitis . . .	...	·101	...	...	...	·020
Liver Diseases (not Malignant) . . .	·076	·202	...	...	...	·061
Other Digestive Diseases (under 2) . . .	·229	·202	·357	·796	·292	·367
Nephritis (Bright's Disease) . . .	·153	·101	·214	...	·292	·143
Puerperal Sepsis . . .	·076	...	...	...	...	·020
Other Diseases and Accidents of Pregnancy, &c. . .	...	...	...	·114	...	·020
Congenital Causes . . .	·916	1·212	1·072	·796	·875	·999
Violence (excluding Suicide) . . .	·229	·606	...	·455	...	·265
Suicide . . .	...	...	·071	·227	...	·061
Other Defined Diseases . . .	3·969	2·627	3·572	3·978	4·376	3·628
Ill-Defined Diseases . . .	·153	·505	·214	·227	·583	·285
TOTAL . . .	12·826	10·919	10·932	13·642	10·796	11·943

The AGE and SEX DISTRIBUTION of the 586 deaths  
was :—

		Estimated population in age periods.	Number of deaths.	Percentage of total.	Rate per 1000 living in each age-period.
MALES.	Under 1 year	651	61	21.40	93.701
	1— 5 years	1,756	12	4.21	6.837
	5—15 „	4,325	6	2.11	1.387
	15—25 „	3,828	11	3.86	2.873
	25—45 „	5,380	23	8.07	4.275
	45—65 „	3,759	52	18.25	13.833
	Over 65 „	1,365	120	42.10	87.912
FEMALES.	Under 1 year	598	41	13.62	68.561
	1— 5 years	1,724	5	1.66	2.900
	5—15 „	4,360	13	4.32	2.982
	15—25 „	3,675	15	4.98	4.082
	25—45 „	6,201	39	12.96	6.289
	45—65 „	4,303	53	17.61	12.317
	Over 65 „	1,886	135	44.85	71.580
TOTALS.	Under 1 year	1,249	102	17.41	81.665
	1— 5 years	3,480	17	2.90	4.885
	5—15 „	8,685	19	3.24	2.188
	15—25 „	7,503	26	4.44	3.465
	25—45 „	11,581	62	10.58	5.353
	45—65 „	8,062	105	17.92	13.023
	Over 65 „	3,251	255	43.51	78.433

INFANTILE MORTALITY.—The deaths of children under one year of age were 102 (61 male, 41 female). The rate per 1000 births was 81.66, the male infantile mortality being 97.70, the female 68.56. The mortality rates in the Districts were :—

			Males.	Females.	Total.
Thornhill	...	...	89.47	68.96	79.67
Dumfries	...	...	141.59	120.48	132.65
Annan	...	...	75.76	67.80	72.00
Lockerbie	...	...	96.49	24.00	58.58
Langholm	...	...	55.55	102.56	80.00
County Landward	...	...	97.70	68.56	81.66

The mortality rate among legitimate infants in the County Landward was 82·26, among illegitimate 77·42. The returns are summarised in the following table:—

**Return of Infantile Mortality for the Year ending 31st December, 1920,**  
**showing net Deaths from stated causes at various ages under one year**  
**of age in County Districts of Dumfriesshire.**

CAUSE OF DEATH.	Under 1 week.	1 and under 2 weeks.	2 and under 3 weeks.	3 and under 4 weeks.	Total under 4 weeks.	4 weeks and under 3 months.	3 and under 6 months.	6 and under 9 months.	9 and under 12 months.	Total deaths under 1 year.
Ali Causes { Certified . . . . .	27	12	4	4	47	20	8	17	10	102
Ali Causes { Uncertified . . . . .	...	...	...	...	...	...	...	...	...	...
Smallpox . . . . .	...	...	...	...	...	...	...	...	...	...
Chickenpox . . . . .	...	...	...	...	...	...	...	...	...	...
Measles . . . . .	...	...	...	...	...	...	...	1	3	4
Scarlet Fever . . . . .	...	...	...	...	...	...	...	...	12	12
Whooping-cough . . . . .	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup . . . . .	...	...	...	...	...	...	...	...	...	...
Erysipelas . . . . .	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis . . . . .	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis . . . . .	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases . . . . .	...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous) . . . . .	...	...	...	...	...	...	1	3	...	4
Convulsions . . . . .	...	1	...	1	2	1	1	12	...	6
Pneumonia (all forms) . . . . .	...	...	...	...	...	5	...	1	2	8
Bronchitis . . . . .	...	...	...	...	...	2	...	2	...	4
Laryngitis . . . . .	...	...	...	...	...	...	...	12	1	1
Diarrhoea and Enteritis . . . . .	...	...	...	...	...	12	3	12	1	8
Other Digestive Diseases . . . . .	...	...	...	...	...	...	...	2	...	2
Congenital Malformations . . . . .	3	...	...	...	3	1	...	1	...	5
Premature Birth . . . . .	19	1	2	2	24	...	...	...	...	24
Atrophy, Debility, and Marasmus . . . . .	2	7	2	1	12	5	1	3	...	21
Atelectasis . . . . .	1	...	...	...	1	...	...	...	...	1
Injury at Birth . . . . .	...	...	...	...	...	...	...	...	...	...
Suffocation, Overlying . . . . .	...	...	...	...	...	1	...	...	...	1
Syphilis . . . . .	...	...	...	...	...	...	1	...	...	1
Rickets . . . . .	...	...	...	...	...	...	...	...	...	...
All other causes . . . . .	2	3	...	...	5	3	1	...	1	10
<b>TOTAL . . . . .</b>	<b>27</b>	<b>12</b>	<b>4</b>	<b>4</b>	<b>47</b>	<b>20</b>	<b>8</b>	<b>17</b>	<b>10</b>	<b>102</b>

Net Births in { Legitimate ... 1094  
the year { Illegitimate ... 155

Net Deaths in { Legitimate Infants ... 90  
the year { Illegitimate Infants ... 12

The Deaths in the five Districts (County Landward)  
classified in groups and according to cause were :—

CAUSE OF DEATH.	-1	1-	5-	10-	15-	25-	35-	45-	55-	65-	75-	All ages	Rates per 1000
Enteric Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhus Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Smallpox . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles . . .	4	...	1	...	...	...	...	...	...	...	...	5	102
Scarlet Fever . . .	...	1	...	...	...	...	...	...	...	...	...	1	020
Whooping-cough . . .	2	1	...	...	...	...	...	...	...	...	...	3	061
Diphtheria . . .	...	3	2	...	...	...	...	...	...	...	...	5	102
Influenza . . .	...	...	...	1	...	...	...	...	...	3	...	4	081
Erysipelas . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Phthisis . . .	...	...	2	...	9	11	6	3	4	4	...	39	795
Tuberculous Meningitis . . .	...	3	1	1	...	...	...	...	...	...	...	5	102
Abdominal Tuberculosis . . .	...	1	...	...	...	...	...	...	...	...	...	1	020
Other Tuberculous Diseases . . .	...	...	...	1	2	2	...	...	...	1	...	6	122
Malignant Diseases . . .	...	...	...	...	1	1	...	11	14	21	16	64	1304
Rheumatic Fever . . .	...	...	...	1	...	2	1	...	...	...	...	4	081
Meningitis . . .	4	2	3	...	...	...	...	...	...	...	...	9	183
Organic Heart Disease . . .	...	...	...	...	2	1	5	2	12	18	23	63	1284
Bronchitis . . .	4	...	...	...	...	...	...	2	1	11	10	28	571
Pneumonia (all forms) . . .	8	4	2	...	1	4	6	2	6	6	5	44	897
Other Respiratory Diseases . . .	2	1	...	...	...	...	1	1	2	1	...	8	163
Enteritis (under 2 years) . . .	8	1	...	...	...	...	...	...	...	...	...	9	183
Appendicitis . . .	...	...	...	1	...	...	...	...	...	...	...	1	020
Liver Diseases (not Malignant) . . .	...	...	...	...	...	1	...	...	1	1	...	3	061
Other Digestive Diseases . . .	2	...	...	...	2	2	3	1	4	2	2	18	367
Nephritis (Bright's Disease) . . .	...	...	...	...	1	...	...	1	2	1	2	7	143
Puerperal Sepsis . . .	...	...	...	...	...	1	...	...	...	...	...	1	020
Other Diseases and Accidents of Pregnancy, &c. . .	...	...	...	...	...	...	1	...	...	...	...	1	020
Congenital Causes . . .	50	...	...	...	...	...	...	...	...	...	...	50	1020
Violence (excluding Suicide) . . .	1	...	...	1	4	1	2	1	2	1	...	13	265
Suicide . . .	...	...	...	...	...	...	1	...	1	1	...	3	061
Other Defined Diseases . . .	14	...	1	...	4	4	6	8	19	33	88	177	3608
Ill-Defined Diseases . . .	3	...	...	1	...	...	...	...	5	1	4	14	286
TOTAL . . .	102	17	12	7	26	30	32	32	73	105	150	586	11943

The Birth and Death Rates of the individual Parishes  
were :—

		Estimated			Rates per 1000.	
Parish.		population.	Births.	Deaths.	Birth.	Death.
Thornhill District.	Closcburn ...	918	35	22	41·39	23·96
	Dunscore ...	918	27	17	29·41	18·52
	Durisdeer ...	769	23	17	29·91	22·11
	Glencairn ...	1284	32	20	24·92	15·58
	Keir ...	454	10	5	22·03	11·01
	Kirkconnel ...	3182	126	33	39·60	10·37
	Morton ...	1 39	45	29	27·45	17·69
	Penpont ...	737	22	9	29·85	12·21
Sanquhar L'wd.	1710	38	14	22·22	8·19	
Tynron...	264	3	2	11·36	7·57	
Dumfries District.	Cacrlavercrock ...	698	21	21	30·08	30·08
	Dumfries L'wd.	3185	64	26	20·09	8·16
	Holywood ...	921	24	11	26·06	11·94
	Kirkmahoe ...	990	25	14	25·25	14·14
	Kirkmichael ...	671	16	7	23·84	10·43
	Mouswald ...	456	10	2	21·93	4·38
	Tinwald ...	645	14	12	21·70	18·60
	Torthorwald ...	748	22	15	29·41	20·05
Annan District.	Annan L'wd. ...	2390	69	32	28·87	13·39
	Cummertrees ...	1075	30	14	27·91	13·02
	Dalton ...	548	6	7	10·95	12·77
	Dornock ...	1867	58	19	31·06	10·18
	Gretna ...	3215	117	34	36·39	10·57
	Half-Morton ...	282	8	2	28·37	7·09
	Kirkpatrick- Fleming ...	1161	25	11	21·53	9·47
	Middlebie ...	1497	42	25	28·07	16·70
	Ruthwell ...	720	20	9	27·78	12·50



		Estimated population.	Births.	Deaths.	Rate per 1000. Birth.      Death.	
<i>Lockerbie District.</i>	Applegarth ...	748	35	5	46.79	6.68
	Dryfesdale L'wd.	740	32	15	43.24	20.27
	Hoddorn ...	1236	33	14	26.70	11.33
	Hutton... ..	585	25	12	42.73	20.51
	Johnstone ...	710	19	14	26.76	19.72
	Kirk.-Juxta ...	925	27	12	29.19	12.97
	Lochmaben L'wd.	1283	41	22	31.95	17.15
	Moffat L'wd. ...	475	8	6	16.84	12.63
	St. Mungo ...	570	4	10	7.02	17.54
<i>Langholm District.</i>	Tundergarth ...	317	5	6	15.77	18.93
	Wamphray ...	370	10	4	27.03	10.81
	Canonbie ...	1632	50	19	30.64	11.64
	Eskdalemuir ...	372	3	3	8.06	8.06
	Ewes ... ..	219	2	2	9.13	9.13
	Langholm L'wd.	297	5	4	16.83	13.49
	Westerkirk ...	388	12	9	30.93	23.25

### Infectious Diseases.

The total number of notifications of infectious diseases received from the County Landward during 1920 was three hundred and forty. Of these, 148 were notified under the provisions of the Infectious Diseases (Notification) Act, 1889, and 192 in terms of Regulations made under Section 78 of the Public Health (Scotland) Act, 1897. They comprised :—

(1) Notified under the provisions of the Infectious Diseases (Notification) Act, 1889 :—

Enteric Fever	...	...	...	2
Scarlet Fever	...	...	...	74
Diphtheria	...	...	...	49
Erysipelas	...	...	...	20
Puerperal Fever	...	...	...	3



(2) Notified in terms of Regulations made under the Public Health (Scotland) Act, 1897, Section 78 :—

Ophthalmia Neonatorum	...	...	6
Malaria	...	...	2
Dysentery	...	...	2
Pneumonia	...	...	25
Influenzal Pneumonia	...	...	5
Chickenpox	...	...	58
Tuberculosis (Pulmonary)	...	...	68
Tuberculosis (Non-pulmonary)	...	...	26

The proportion of cases notified to 1000 persons living was 7·7.

The Notifications received each month were :—

	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Enteric Fever	...	...	...	...	...	...	1	...	...	...	...	1	2
Scarlet Fever	...	5	6	7	6	7	7	2	10	6	7	4	74
Diphtheria	...	6	3	10	2	1	1	2	2	4	4	10	49
Erysipelas	...	1	2	3	3	...	...	2	3	2	2	1	20
Puerperal Fever	...	1	1	...	...	...	...	1	...	...	...	...	3
Ophthalmia													
Neonatorum	...	...	...	...	...	1	...	1	1	2	1	...	6
Malaria	...	1	...	...	...	...	...	...	...	1	...	...	2
Dysentery	...	...	...	...	...	...	...	...	...	...	2	...	2
Pneumonia													
(Primary)	...	2	2	6	2	1	3	1	...	3	2	1	25
Pneumonia													
(Influenzal)	...	1	...	...	...	1	...	...	...	2	...	1	5
Chickenpox	...	...	...	...	...	1	12	12	2	3	9	9	58
Tuberculosis—													
Pulmonary	...	5	10	3	6	6	2	3	4	7	5	10	68
Non-pulmonary	4	...	3	3	1	1	4	1	3	1	3	2	26
	25	24	33	22	17	28	27	24	29	35	41	35	340

The Age-incidence is shown in the following summary of the returns for the five Districts made to the Board of Health :—

	At all ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upward
Enteric Fever ...	2	...	...	...	1	...	1	...
Scarlet Fever ...	74	...	12	53	6	1	2	...
Diphtheria ...	49	1	10	22	12	2	2	...
Erysipelas ...	20	...	1	...	3	7	5	4
Puerperal Fever	3	...	...	...	...	3	...	...
Ophthalmia								
Neonatorum	6	6	...	...	...	...	...	...
Malaria ...	2	...	...	...	1	1	...	...
Dysentery ...	2	...	...	...	...	2	...	...
Pneumonia—								
Primary ...	25	6	3	7	1	5	1	2
Influenzal ...	5	1	...	...	3	...	1	...
Chickenpox ...	58	2	12	42	1	1	...	...
Tuberculosis—								
Pulmonary ...	68	...	...	6	15	31	13	3
Non-pulmonary	26	...	3	10	4	5	4	...

The Notifications from each District were:—

	Thornhill.	Dumfries.	Annan.	Lockerbie.	Langholm.	Totals.
Enteric Fever ...	...	1	1	...	...	2
Scarlet Fever ...	38	19	11	5	1	74
Diphtheria ...	18	11	15	5	...	49
Erysipelas ...	6	6	3	5	...	20
Puerperal Fever	1	1	1	...	...	3
Ophthalmia						
Neonatorum	2	...	2	1	1	6
Malaria ...	1	...	1	...	...	2
Dysentery ...	...	...	2	...	...	2
Pneumonia—						
Primary ...	8	2	9	5	1	25
Influenzal ...	...	1	4	...	...	5
Chickenpox ...	9	9	34	6	...	58
Tuberculosis—						
Pulmonary ...	17	14	20	12	5	68
Non-pulmonary	4	6	6	10	...	26
	—	—	—	—	—	—
	104	70	109	49	8	340

No case of **Smallpox** was reported, and none have been known to occur in the County since 1904. There were several scares and one narrow escape, a child developing the disease after a short sojourn in the County on his return from Glasgow to Wales. He had been sick, but the rash did not develop till after his departure.

One hundred and seventy-one intimations of Conscientious Objection to Vaccination were reported by Registrars—67 in Thornhill District (of which 57 were in Kirkeconnel), 29 in Dumfries, 51 in Annan, 24 in Lockerbie, and none in Langholm. These figures are forty-nine fewer than the intimations of Conscientious Objection made in 1919. During the prevalence of the disease in Glasgow and outbreaks in other parts of Scotland, the District Committees offered free revaccination, an offer of which 1136 persons availed themselves. These were in addition to insured persons whose revaccinations were not reported to the Health Office.

Fifty-eight notifications of Chickenpox were received, thirty of them prior to October 1st, when this disease was made compulsorily notifiable by Regulations made under Section 78 of the Public Health (Scotland) Act, 1897. Before that date it was notifiable under the provisions of the Infectious Diseases (Notification) Act, 1889, extended by the District Committees.

Two cases of **Enteric Fever** were notified—one from Gretna in July and one from Dumfries Landward in December. The first was really notified as a suspected case. The symptoms cleared up shortly after admission, and the blood serum gave a negative result to the Widal test. The second was found to be a case of Paratyphus B, an infection probably got from food during the absence of the patient from the County. Recovery was uninterrupted after the removal of the patient to hospital.

The number of cases notified, deaths, and various rates during the past five years have been :—

	1916.	1917.	1918.	1919.	1920.
Cases ... ..	3	4	1	3	2
Deaths ... ..	0	1	1	0	0
Sickness-rate per 1000 ...	·060	·072	·018	·058	·045
Mortality-rate per 1000	nil.	·018	·018	nil.	nil.
Case-fatality per 1000 ...	nil.	250	1000	nil.	nil.

Seventy-four cases of **Scarlet Fever** were reported from twenty parishes—eighteen in the first quarter, twenty in the second, eighteen in the third, and eighteen in the fourth. There was no decided seasonal prevalence. Forty-seven per cent. were from the parishes of Morton (11), Closeburn (12), and Dumfries Landward (12). Sixty-three families were affected, fifty-two having one case in each, and eleven having two. Seventy-three cases were removed to hospital. There were no fatalities.

The number of cases and deaths, the sickness and mortality rates, and the case-fatality from this disease during the past five years in the County Landward were :—

	1916.	1917.	1918.	1919.	1920.
Cases ... ..	175	97	76	138	74
Deaths ... ..	3	3	1	3	0
Sickness-rate per 1000	3·53	1·77	1·38	2·65	1·69
Mortality-rate per 1000	·061	·055	·018	·058	nil.
Case-fatality per 1000	17·14	30·93	13·16	21·73	nil.

The notifications of **Diphtheria** were forty-nine, and were received from seventeen parishes. Nineteen were reported in the first quarter, four in the second, eight in the third, and eighteen in the fourth. Forty-five families were affected, forty-two having one case in each, two having two, and one three.

Twenty-six cases were proved bacteriologically to be true Diphtheria, twenty-two gave a negative result, and from one no swab was submitted. One of the cases giving the positive result was a school teacher who proved to be a temporary carrier rather than a sufferer. Forty-four cases were removed to Hospital. There were five fatalities.

The number of cases notified, of deaths, and of various rates during the past five years have been :—

			1916.	1917.	1918.	1919.	1920.
Cases	...	...	127	96	73	75	49
Deaths	...	...	10	4	3	3	5
Sickness-rate per 1000			2.56	1.75	1.33	1.44	1.118
Mortality-rate per 1000			.202	.073	.055	.058	.114
Case-fatality per 1000			78.73	41.67	41.09	40.00	102.04

There were twenty notifications of **Erysipelas**, three of **Puerperal Fever**, six of **Ophthalmia Neonatorum**, two of **Malaria**, two of **Dysentery**, and thirty of **Pneumonia**. One notification of **Malaria** and the two of **Dysentery** came from the hospital at Gretna, established there by the Ministry of Pensions for ex-service men from Cumberland. The other case of **Malaria** was an ex-soldier from Dumfriesshire, who had been infected abroad.

**Tuberculosis** in the Districts was responsible for ninety-four notifications, which are dealt with in the report of the Tuberculosis Officer.

No notifications of **Typhus**, **Cholera**, **Relapsing Fever**, **Continued Fever**, or **Trench Fever** were received.

### Tuberculosis.

The Report of the Tuberculosis Officer is submitted. It includes Burghs as well as Districts, the entire work in the County (except Dumfries Burgh) being administered by the Public Health Committee of the County Council, enlarged by representatives from the Burgh Councils.

*Notifications.*—These numbered 127, classified as follows :—

	Males.	Females.	Total.
Pulmonary ...	59	35	94
Non-pulmonary	18	15	33
	—	—	—
Total ...	77	50	127

This is the smallest number of notifications received in any year since the notification of all forms of Tuberculosis was made compulsory, as will be seen from the following table :—

Year.	Pulmonary.	Non-Pulmonary.	Total.
1914 ...	... 109	22	131
1915 ...	... 89	45	134
1916 ...	... 142	56	198
1917 ...	... 117	54	171
1918 ...	... 117	40	157
1919 ...	... 95	44	139
1920 ...	... 94	33	127

The Non-pulmonary cases comprised :—

Glandular Tuberculosis	...	...	...	... 11 cases.
Abdominal Tuberculosis	...	...	...	... 4 „
Osseous Tuberculosis	...	...	...	... 12 „
Cutaneous Tuberculosis	...	...	...	... 1 „
Central Nervous System Tuberculosis	...	...	...	... 3 „
Other Tuberculosis	...	...	...	... 2 „
				—
Total	...	...	...	... 33 „

In addition, four cases notified as Pulmonary were found to be suffering from Non-pulmonary complications, and in one case notified as Non-pulmonary the lungs were affected.

The QUARTERLY INCIDENCE OF NOTIFICATIONS was :—

First Quarter	...	...	...	... 39
Second Quarter	...	...	...	... 23
Third Quarter	...	...	...	... 31
Fourth Quarter	...	...	...	... 34
				—
Total	...	...	...	... 127

The localities from which cases were notified were :—

	Pulmonary.	Non-Pulmonary.	Total.
Thornhill District ...	17	4	21
Dumfries District ...	14	6	20
Annan District ...	20	6	26
Lockerbie District ...	12	10	22
Langholm District ...	5	...	5
Annan Burgh ...	7	5	12
Sanquhar Burgh ...	3	1	4
Lockerbie Burgh ...	1	...	1
Moffat Burgh ...	6	...	6
Langholm Burgh ...	7	...	7
Lochmaben Burgh	2	1	3
	—	—	—
Total ...	94	33	127

The AGE-INCIDENCE of those cases was :—

Under 1 year ...	...	...	...	0
1 to 5 years ...	...	...	...	3
5 to 15 years ...	...	...	...	20
15 to 25 years ...	...	...	...	24
25 to 45 years ...	...	...	...	54
45 to 65 years ...	...	...	...	20
Over 65 years ...	...	...	...	6
				—
Total ...	...	...	...	127

As regards NATIONAL INSURANCE, the 104 cases over 15 years old showed :—

	Males.	Females.	Total.
Insured ...	49	12	61
Non-insured ...	20	23	43
	—	—	—
Total ...	69	35	104



*Trade or Profession.*

Of the total cases notified, 14 were described as having no occupation, and 20 were school children. The remainder were described as :—

Domestic Duties	...	23	Clerk	...	...	...	1
Farm Work	...	14	Fisherman	...	...	...	1
Soldiers	...	12	Gardener	...	...	...	1
Shopkeepers and			Joiner	...	...	...	1
Assistants	...	8	Nurse	...	...	...	1
Estate Workers	...	5	Painter	...	...	...	1
Railway Workers	...	4	Postman	...	...	...	1
Miners	...	4	Sailor	...	...	...	1
Factory Workers	...	3	Teacher	...	...	...	1
Engineering Trades	...	3	Tradesman's	Messenger			1
Building Trades	...	3	Watchmaker		...	...	1
Motor Drivers	...	2	Wireless Operator	...	...	...	1

In addition to those described as soldiers, 12 other male patients were ex-service men.

*Housing Conditions.*

. These were as follows :—

- 1 case occurred in a house of 1 room.
- 20 cases occurred in houses of 2 rooms.
- 38 cases occurred in houses of 3 rooms.
- 25 cases occurred in houses of 4 rooms.
- 12 cases occurred in houses of 5 rooms.
- 18 cases occurred in houses of more than 5 rooms.
- 13 cases were notified from Institutions.

The Institutions from which notifications were received were :—

Crichton Royal Institution	...	...	7 cases.
Ministry of Pensions Hospital. Gretna	...	3	„
Dumfries and Galloway Royal Infirmary	2	„	
Royal Infirmary, Edinburgh	...	...	1 „

*After History.*

Of the 127 cases, 34 had died, 8 had left the County, and 85 were still alive at the end of the year.

Amongst the deaths—

6 took place before notification.

12 took place less than a month after notification.

6 took place 1 to 3 months after notification.

5 took place 3 to 6 months after notification.

5 took place 6 to 12 months after notification.

In two of the 85 survivors the disease was apparently arrested before the end of the year.

*Sanatorium Treatment.*

Forty-two of the patients notified during the period under review were sent to Sanatorium or Hospital, and in addition, 11 persons previously notified were admitted during the year.

Their disposal was :—

					Notified in 1920.	Previously notified.	Total.
Meathop	...	...	...	...	11	1	12
Bridge-of-Weir	...	...	...	...	4	3	7
Lochnaben	...	...	...	...	12	5	17
Dumfries and Galloway Royal Infirmary	9					1	10
Other Institutions	...	...	...	...	6	1	7
					—	—	—
	Totals	...	...	...	42	11	53

*Shelters.*

Ten Shelters were issued to patients during the year, and have, in practically all cases, been properly used. There are at present twenty-three shelters in use throughout the County.

*Prevalence of Tuberculosis.*

The number of persons living in the County and suffering from Tuberculosis at the end of 1920 was estimated at 378, their distribution being :—

	Pulmonary.	Non-Pulmonary.	Total.
Thornhill District ...	52	76	128
Dumfries District ...	33	26	59
Annan District ...	28	29	57
Lockerbie District ...	23	16	39
Langholm District	11	4	15
Annan Burgh ...	12	9	21
Sanquhar Burgh ...	5	6	11
Lockerbie Burgh ...	6	2	8
Moffat Burgh ...	10	4	14
Langholm Burgh ...	19	2	21
Loehmaben Burgh	1	4	5
	<hr/> 200	<hr/> 178	<hr/> 378

The general administrative methods and the forms used in reporting are practically the same as in previous years, so that I need not discuss them further.

**Hospitals.**

Two cases of suspected Enteric Fever, seventy-three of Scarlet Fever, forty-four of Diphtheria, one of Erysipelas, and one of Pneumonia in which there was a suspicious element of Enteric, were removed from the Districts to County Hospitals. One case of Puerperal Fever was taken to the Works Hospital at Eastriggs, and as already stated, one case of Malaria and two of Dysentery were notified from the Hospital established at Gretna by the Cumberland Local Pensions Committee for ex-service men. Thirty-six cases of Scarlet Fever and thirty-nine of Diphtheria were removed from Burghs. The admissions to each of the County Hospitals were :—

		En- teric.	Scarlet Fever	Diph- theria.	Erysip- elas.	Pneu- monia.	
Thornhill	{ Thornhill District	...	37	17	...	...	81
	{ Sanquhar Burgh	...	...	27	...	...	
Lochmaben	{ Dumfries District	1	19	11	1	...	67
	{ Lockerbie District	...	5	3	...	1	
	{ Lochmaben Burgh	...	1	1	...	...	
	{ Lockerbie Burgh	...	3	...	...	...	
	{ Moffat Burgh	...	18	1	...	...	
	{ Annan District	...	1	1	...	...	
Annan	{ Annan District	1	10	12	...	...	40
	{ Annan Burgh	...	8	9	...	...	
Eskdale	{ Langholm District	...	1	...	...	...	8
	{ Langholm Burgh	...	6	1	...	...	

In addition to the above, there were admitted to Lochmaben Hospital three cases of Scarlet Fever from Dumfries Burgh, and seventeen cases of Pulmonary Tuberculosis from various parts of the County.

The pressing want at all the Hospitals at present is a Motor Ambulance. The horsing of the existing ambulances is increasingly difficult, and very troublesome delays in the removal of patients, especially those suffering from Diphtheria, are being experienced. Not only are the distances in many cases so great as to require a rest for the horses before they can begin the return journey with the patient, but there would seem to be fewer horses for hire, and in more than one instance removal of a patient has been delayed for several hours because the horses were required for a funeral.

The Smallpox Hospital has not been in occupation since 1904. There appears to be some prospect now of having it removed from its present site to one where a gravitation supply may be obtained, and where it will be under better and closer supervision than it can be at present.

## Housing.

The complaints of defective housing conditions may be shown in summary form :—

	Houses damp or out of repair.	Defective water supplies.	Defective fittings and drains.	Want of suit- able privy accommoda- tion.	Offensive aspirits or refuse accumu- lations.	Totals.
Thornhill District ...	21	4	6	...	4	35
Dumfries District ...	12	1	1	1	1	16
Annan District ...	14	1	7	1	4	27
Lockerbie District ...	6	4	4	1	...	15
Langholm District	...	1	2	...	...	3
	—	—	—	—	—	—
	53	11	20	3	9	96

Twenty-five of the complaints were inspired by the provisions of the Increase of Rent and Mortgage (Restriction) Act, 1920, under which a certificate from a Sanitary Authority may be produced in Court as evidence that a house is not in all respects reasonably fit for human habitation or is otherwise not in a reasonable state of repair. In sixteen of these the issue of a certificate was recommended.

One complaint, or rather a series of complaints, of smells in two dwelling-houses in Thornhill was of more than usual interest. The houses are situated at the north end of Thornhill on the east side of the Dumfries and Glasgow road, opposite to the road leading to Nith Bridge and passing the Sewage Purification Works. They are semi-detached, substantially built of freestone, contain indoor water closets and sinks, the drains from which pass under the passage of one of the houses to a sewer in the roadway. They are modern houses, and the site on which they are built was formerly occupied by two old cottages. The first complaint was made in 1919. An inspection of the houses revealed no definite sanitary defect with the exception that an intercepting trap could not be found. The proprietor was then asked to have the drains smoke-

tested, and in preparing for this the intercepting trap was found completely covered by the pavement, so that there was no ventilation of the drain. The drain under the house was found to be of iron, and certain connections at the back, outside the house, of fireclay. These latter were found defective, so that a test could not be applied to the iron drain until they were put in order. When this was done a telephone message was sent to the office requesting the presence of an Inspector immediately as, it was said, the drain track could not be kept open. Both Inspectors were engaged in other parts of the County and could not attend, but the proprietor reported that the test was satisfactory.

The complaints, however, continued. The proprietor suggested that the offence was from the Sewage Works, which had not been closely attended to during the war, and that there were complaints from every house in the neighbourhood. The occupants, on the other hand, alleged that the smells were felt inside the houses, not outside, and inhabitants of neighbouring cottages had no complaints of smell coming to their houses from these works. Some of the older inhabitants then informed us that occupants of the cottages previously occupying the site had been troubled by smells in the houses, on account of which they had to throw doors and windows open. Further information was obtained to the effect that a drain from Dabton Loeh had at one time passed under the site of the cottages, but had been diverted to the north of it. No information could be got as to the manner of carrying out this diversion, but it was a natural inference that any faulty method of doing this might account for the smells complained of. It was accordingly suggested that the ground in front of the houses should be opened to ascertain whether there was any evidence of such a drain. A trench was cut under local supervision, but nothing found. Later the District Committee instructed the public health officials to make a further investigation. A trench, extending along the front of the houses, was then dug, and at a depth



of little more than two feet from the surface a pen, measuring about two feet square, was found coming from below the house. It was dry in the bottom, and on the roadway being opened nearer the sewer, it was found to be directly connected to the latter, so that it formed a shaft for the passage of sewer gas under and into the house. Evidently the pen had been used to convey water into the sewer, and the diversion had been well done at the back of the house, but nothing done to cut off the pen from the sewer. Just above its connection with the sewer a waste-water drain from a neighbouring house had been taken into it, although there was a manhole immediately alongside. It was arranged (1) that this rain-water drain should be taken out of the pen and put into the manhole, (2) that the junction of pen and sewer should be closely built up and the mason work cemented over, and (3) that as an additional safeguard the pen should be filled up close to the house with clean earth thoroughly rammed. Since this was done complaints have entirely ceased. The course of the drain from Dabton Loch was not followed out, but it is probably taken across the roadway into an old water-course which is covered over for some distance down the road to Nith Bridge.

The letters and intimations under the provisions of the Public Health (Scotland) Act, 1897, Section 19, were :—

	Houses damp or out of repair.	Defective water supplies.	Defective fittings and drains.	Want of suitable privy accommoda- tion.	Offensive ash- pits or refuse accumulations.	Totals.
Thornhill District ...	22	2	10	3	4	41
Dumfries District ...	13	5	6	2	7	33
Annan District ...	21	3	10	2	4	40
Lockerbie District ...	14	6	2	2	1	25
Langholm District ...	...	1	1	1	...	3
	—	—	—	—	—	—
	70	17	29	10	16	142

Forty of these nuisances were the subject of special report to the District Committee. Fifteen notices were



ordered to be issued, and sixteen certificates under the provisions of the Increase of Rent and Mortgage (Restriction) Act, 1920. It was not found necessary to take proceedings in Court in any of the cases in which the notices were issued. Nor do proceedings seem to have followed the granting of certificates. This was due in some instances to proprietors effecting necessary repairs before raising rents; in others to the rents being left as they were; and in a third class of cases it was evident that the recipients did not know how to use the certificates, or objected to the expense of taking proceedings as being perhaps greater than the actual increase of rent.

Thirty-one plans were submitted, and three intimations made, of proposals to add to or alter existing dwellings. One of these was a plan for the conversion of Kirtlebridge Inn to three houses for roadmen.

Plans for two hundred and sixty-five new houses were submitted. Two hundred of these are in the scheme for provision of houses in Kirkcannel, two were for roadmen in the Dumfries District under the provisions of the Housing, Town-Planning, &c. (Scotland) Act, 1919, Section 5 (1) (b); and thirty-seven in the Annan District, part of these being for a general scheme under Section 1 of the foregoing Act, and part under the provision of Section 5 (1) (b) for roadmen. Subsidy was claimed for twenty-four under the provisions of the Housing (Additional Powers) Act, 1919, and certificates recommended to be granted for twenty-two. Four of the plans were for huts, three of them being intended to relieve congestion in Upper Nithsdale.

The housing schemes in all the areas have been the subject of a considerable correspondence with the Board of Health. In addition to the two hundred houses at Kirkcannel, it is proposed to erect fifty in the other parishes of the Thornhill District, and sites have been provisionally selected.

In Dumfries District a Sub-committee reported on

30th June: "After full and careful consideration, the following points were arrived at:—

"1. The district is mainly an agricultural one, and there does not appear to be any very great demand for additional new houses.

"2. The existing houses, however, are, many of them, unfit for occupation, according to the present standard of 'habitability,' and the response to enquiries by the Medical Officer shows that the majority of the owners of such houses are unable, or unwilling, to undertake the work necessary to satisfy the Board of Health.

"3. The Sub-committee considers it advisable that a scheme of house building and house renovation should be proceeded with by the District Committee, particularly for the reason that, if the District Committee does not proceed in the matter, it will be open to the Board of Health (as has already been the case) to make enquiries and, if it sees fit, undertake a scheme of its own, entirely irrespective of the Dumfries District Committee's wishes, but entirely at the expense of the ratepayers in that District, and without any grant from Government funds.

"Subsidiary points arising from our discussion showed that the District could not be rated for the Housing Scheme beyond the rateable value of  $\frac{4}{5}$ ths of one penny. Any further expenditure incurred by the Committee on housing, less, of course, the amount of rent received, would be borne by the Central Government Authority. It would, therefore, appear advisable to make the scheme for new housing, or reconstruction, a complete one.

"Reference has been made above to the fact that the Parishes making up the so-called Dumfries District are mainly agricultural. The great difficulty in the construction of new houses for agricultural employees is, that after once getting possession of the house, the employee might quite conceivably change his employ, and refuse to leave the house; and the Committee have no power to make him do so, except after a term—which, at present,

is one of three years. It would be most unfair to put the cost of providing artisans' houses on the agricultural community, or expect the general body of ratepayers of the District to pay for the housing of men employed, say, with the Arrol-Johnston Coy. or the Racks Peat Works.

“Reference was made to the Government huts at Gretna, which are now empty. When the Gretna Works were at full swing, employees there swamped the housing accommodation of the Dumfries District. Employment is not now going on at Gretna, and it might be considered advisable to approach the proper authorities as to whether they would not relieve some of the present congestion in Dumfries District by making available their (now empty) accommodation at Gretna, thus saving Government money in two directions.

“It was suggested, in drawing up a scheme for submission to the Board of Health, that the figures which Dr Maxwell Ross has obtained of the houses which prove to be in the worst condition at present should be made use of; and the worst houses should be either reconstructed, or replaced, in the first instance.

“ (Signed) HENRY KESWICK, Convener.”

Later, sites for twenty-eight new houses were suggested by the Sub-committee, who reported, under date 18th October, 1920 :—

“The Sub-committee met Major Keswick of Cowhill Tower at Holywood Village and discussed with him as to the proposal to erect two dwelling-houses at Holywood Village (on the Cowhill Estate). Major Keswick having informed the Sub-committee that he was prepared to build houses suitable and adequate for the population that could be employed in the district, the Sub-committee agreed that under these circumstances there was no necessity for the Local Authority erecting cottages.

“With regard to Kirkhouses, where there is a collection of ten or twelve cottages, the majority of which require

wholesale repairs, the advice of the Sub-committee is that two dwelling-houses should be built for occupation by tenants of the present houses whilst their own cottages are being reconstructed. A suitable site appears to be on the north side of the road between the present houses and the Church.

“ It was agreed to recommend that two dwelling-houses be built on the left-hand side of the road going towards Dumfries at the Dumfries end of Dalswinton Village, on the estate of Dalswinton, but that the proprietor of the land should have the option of building privately if he wished to do so.

“ The Sub-committee recommend that six dwelling-houses should be built at Kirkton Village. A suitable site for a pair of cottages appears to be on the opposite side of the road from the Parish Church, 30 or 40 yards west of the 4-mile stone, while four cottages might be built on the portion of ground between the Doctor's house and the village.

“ The best building site at Amisfield would be at the north end of the village, and the Sub-committee were of opinion that two dwelling-houses might be built there, this site being on the property of Viscount Chilton.

“ The Sub-committee recommend that six dwelling-houses be built at Heathhall, on the property of Arrol-Johnston, Ltd., either at the Locharbriggs end of the terrace of houses on the right-hand side of the road going towards Dumfries, or at the Dumfries end of the terrace and on the left-hand side of the road.

“ At Kingholm a difficulty as to water supply presented itself, but provided that it can be overcome, the Sub-committee recommend that two dwelling-houses be built on either of the two sites on the property of the Directors of the Crichton Royal Institution, which Dr Maxwell Ross pointed out. These two sites are in a field on the right-hand side of the road leading from the New Quay towards the Gleneapple Road.

“ At Bankend the Sub-committee found it difficult to recommend anything, as the houses, the majority of which are thatched, whilst others are roofed with corrugated iron, are in a wretched state of repair, and were it not for the hardship which would be imposed upon the tenants, they would be inclined to condemn them all. As the building of new houses would be merely palliative and no cure, the Sub-committee recommend that the proprietrix be advised that at the end of present tenancies she will not be permitted to relet.

“ At Georgetown the Sub-committee found the houses in a very bad state of repair, and as they did not see the necessity for new houses in this neighbourhood, they make no recommendation.

“ The Sub-committee recommend that eight dwelling-houses be built on the property of Sir Robert Grierson, Bart., of Roekhall, on the left-hand side of the low road to Annan on the Annan side of the village.”

The schemes of general housing and housing of roadmen in Annan District have been delayed by negotiations regarding sites and the desire of the Secretary for Scotland to be satisfied that houses for roadmen were necessary. A special report was also ordered from the Medical Officer by the Board of Health on the disposal of sewage at the various sites selected. The question of housing is, however, complicated by the condition of matters at Gretna.

In Loekerbie District it was found that there was a demand for houses in the neighbourhood of Beattock, largely for railway employees, for whom the railway company would not make provision. Over thirty names were given of persons wanting houses. A provisional site was selected on Loch House Farm. The question of water supply was gone into, and as there seemed to be a case for improving the supplies to the neighbouring villages of Beattock and Craigielands, it was suggested that a special district might be formed to include this and neighbouring houses along with the new houses when erected. It was hoped that a source might be found in the Eller Burn,



but the difficulties in the way of forming a suitable reservoir were so great that Mr W. C. Easton, the engineer, estimated that it could not be made at a less cost than £20,000. Other sources were looked for on the Kinnel Water, near Cauldholm and Kinnelhead, on Garpol Water, on Evan Water, on Cloffin Burn, on Harthope Burn, on Grantown above the Moffat supply, on Birnoek Water, and in the Moffat supply itself, the suggestion being that if an agreement were arrived at with Moffat Town Council a pipe might be taken from Moffat to Beattoek. The report of the Engineer showed that the most economical of any of them would be a supply from the Garpol Water, the cost of which he estimated as follows :—

Intake Works	...	...	...	...	£500
Main pipe (4-inch)	...	...	...	...	2700
Filters and Filter House	...	...	...	...	2500
Allow extra provision for rock cutting (say)					500
Accessories, land and wayleaves, contingencies and engineering and inspection (say)	...	...	...	...	1300
					£7,500
Add " Distribution Works "	...	...	...	...	7,000
					£14,500

As 1s in the £1 in the proposed district would only produce about £70, the cost of introducing a supply by gravitation was felt to be prohibitive. A sample taken in August also showed that the water was not of high quality, giving, as it did, the following results, stated as grains per gallon :—

Total Solid Residue	...	...	...	...	4.20
Saline Residue	...	...	...	...	3.09
Volatile Matter	...	...	...	...	1.11
Chlorine	...	...	...	...	.59
Nitrates ( $N_2O_5$ )	...	...	...	...	.054
Nitrites	...	...	...	...	nil.
Free Ammonia	...	...	...	...	.000406
Albuminoid Ammonia	...	...	...	...	.0161

The sample had a distinct yellow tinge, contained matter of a vegetable nature in suspension as well as in solution, and the total solids blackened when ignited. *B. coli* were present in 1 e.e.

The Engineer further considered the probable cost of a scheme for lifting water by ram from the Evan, and brought it out at £8000 for the Main Water Works, which, added to the estimated cost of Distribution Works, raised the total to £15,000.

Another suggestion was made that the supplies might be got by sinking a well for each house. The Committee were advised that, even if a sufficient supply could be got in this way, the continued freedom from pollution of ground water could not be guaranteed if sewers had to be laid in the area.

The difficulties have led to the abandonment of the housing scheme in the meantime.

In Langholm District it was proposed to build a certain number of new houses in Canonbie, but the estimates have come out so high as to be prohibitive at present.

### Water Supplies.

Samples from fourteen public supplies were taken each quarter, and the detailed results presented in the quarterly reports.

The Thornhill samples gave satisfactory results, except in the fourth quarter, when matters in suspension were found, and *B. coli* were present in amounts as low as 1 e.e. Moniaive also showed matter in suspension in the fourth quarter. The *B. coli* content was low, except in the second quarter, when the organisms were found in 1 e.e. The sample taken during the fourth quarter in Penpont contained matter in suspension, but the *B. coli* content was low in each quarter. Kirkeonnel showed matter in suspension in the sample of the first quarter. In the second and third quarters *B. coli* were present in amounts



of 1 e.e. This village has two supplies, which have sometimes got intermingled in the pipes, and this may account for the varying results sometimes obtained. The supply to Crawick usually shows a slight yellow tinge. Albuminoid Ammonia was rather high in third and fourth quarters, and in the third matter in suspension was observed. *B. coli* were present in amounts of 1 e.e. in the second quarter. In the other three these organisms were not found in less quantities of the water than 10 e.e. Dumfries Landward is another water which usually shows a slight yellow tinge in a two-foot tube. Albuminoid Ammonia was slightly high, but the *B. coli* content low. Blackshaw water showed certain defects in the first quarter with matter in suspension and high albuminoid ammonia, but matters improved after seouring. The results were good during the rest of the year, and *B. coli* content was low. Some difficulty was experienced with the pumping. Glen-eagle is not a satisfactory supply, but so far as the *B. coli* content goes it is low. Vegetable growths give trouble, and the albuminoid ammonia is somewhat high, generally in third and fourth quarters. The supply from Rockhall showed matter in suspension, but a low *B. coli* content. The defect in this water is the want of filtration and the strain put upon it so far as quantity goes. The samples taken from the Eaglesfield supply were low in *B. coli* during the first and fourth quarters, but high in the second and third. The Lower Annandale water has usually a faint yellow tinge, and shows a somewhat high albuminoid ammonia, probably due to some vegetable matter never quite cleared away from the reservoir. The *B. coli* content is low. Samples from Ruthwell and Raffles twice showed matter in suspension, but *B. coli* were not found in smaller quantities of the water than 100 e.c., and on two occasions was not found even in these. Bankshill gave very favourable results, but in the fourth quarter there was a little matter in suspension. The samples from Eeefeehan were generally clear and bright, and *B. coli* content low. Some matter was present in suspension in the sample of the fourth quarter.

One hundred and fifty-three samples were taken of the supply to Gretna Township for bacteriological examination, viz., 51 of pumped river water, 51 after chemical treatment with chlorine, lime, and alumino-ferrie, and 51 after chemical treatment and filtration through Paterson filters. The results, so far as *B. coli* content is concerned, were :—

	Pumped river water untreated.	Chemically treated water.	Chemically treated and filtered.
<i>B. coli</i> absent from quantities of 100 e.e.	1	31	30
<i>B. coli</i> present in quantities of 100 e.e.	1	14	13
<i>B. coli</i> present in quantities of 10 e.e.	...	4	4
<i>B. coli</i> present in quantities of 1 e.e.	8	1	2
<i>B. coli</i> present in quantities of 0.1 e.e.	37	1	2
Not available for examination ...	4	...	...
	—	—	—
	51	51	51
	—	—	—

The chemical treatment has been on the whole very successful in removing organisms of the *B. coli* type, and probably has relieved the filters of much of this particular work. On ten occasions there were fewer organisms in the chemically treated and filtered water than in the chemically treated only, while on twelve occasions there were more.

The expense of pumping from the Esk, near Longtown, and of chemical treatment and filtration at Douglas, is borne by the War Office; but if Gretna and Eastriggs Townships, with the Factory, are not retained by the Government for national purposes, the whole circumstances of the supply may have to be very carefully reviewed by the District Committee as Local Authority.

Nineteen samples from private supplies were taken, and the detailed results given in the quarterly reports.

Two Special Districts were formed during the year—one in West Canonbie, the other at Rowanburn.

In the case of the former it was proposed to supply farms and other subjects in an area bounded on the east by the river Esk, between Hagg Burnfoot and Closses Burn, and by boundaries “commencing at Hagg Burnfoot, including cottages at Hagg School, thence towards Hagg Burn plantation and Enthorn farm, thence between Enthorn and Whiteknowe, thence between Tareoon and Whiteknowe, thence between Ryehills fields and Hagghill, thence between Ryehills fields and Ryehills hill ground, then southwards to Tomshielburn house and steading, which will be included, then following the Glenzier Burn to Fauldy, but including buildings at Glenzierhead and Evertown village and farm, which are situated on the right bank, then eastwards by line till south of Mouldy-hills farm to Closses Burn, then following the burn to the river Esk, but including Priorslynn Farmhouse, cottage, and buildings.”

It was proposed to take the water from the Irvine Burn. Samples taken from it on 6th April showed the following chemical results:—

	Grains per gallon.		
Total Solid Residue	...	...	5.20
Saline Residue	...	...	4.06
Volatile Matter	...	...	1.14
Chlorine	...	...	.63
Nitrates ( $N_2 O_5$ )	...	...	.081
Nitrites	...	...	nil.
Free Ammonia	...	...	.00046
Albuminoid Ammonia	...	...	.0172

In the Bacteriological examination the organisms developing at room temperature were 140 per c.e., and at 37°C. (blood heat) 20 per c.e. *B. coli* were present in quantities of 100 c.e., but were not found in smaller amounts of the water. Physically, the sample showed a distinct yellow tinge when examined in a two-foot tube. Evidently the water contained vegetable matter in solution, but was free from gross or dangerous animal matter. It appeared

to be suitable if filtered. The valuation of the District was calculated to be about £2000, worked out as follows :—

A—Yearly Rent or Value	...	...	£2619	5	1
B—Value for Agricultural Rates	...	...	2085	14	4
C—Difference between A and B	...	...	533	10	9
D—Three-eighths of B	...	...	782	2	10
E—Sum of A, C, and D	...	...	3934	18	8
F—Half of E—mean rateable value	...	...	1967	9	4

One shilling in the pound would therefore produce nearly £100 per annum. Mr W. C. Easton, who was called in to advise on the engineering of the scheme, reported that at the prevailing prices the cost of the necessary works would approximate to £20,000, made up as follows :—

Intake Works on Irvine Burn and					
Balancing Tank on Torbeek Hill	...	£2,100	0	0	
Main from Intake to Torbeck Hill					
through moor and fields	...	2,300	0	0	
Distributing Mains (5½ miles)	...	8,300	0	0	
Branches, Service Piping, &c. (4 miles)		4,100	0	0	
Contingencies, Engineering, and Inspection		2,500	0	0	
		£19,300	0	0	
Say Twenty Thousand pounds	...	£20,000	0	0	

In the event of filters being considered necessary, Mr Easton estimated that the total would amount to £21,500. This was an increase of about 250 per cent. over pre-war figures.

The District Committee, after full consideration, resolved to abandon the scheme at the present time.

The second Special District—Rowanburn—was in the more fortunate position of having a scheme which the proprietor was willing to hand over to the Local Authority. The supply in this instance is from sources on Barrascrofts Farm, and is collected by tile drains and conveyed by a cast-iron pipe, two inches in diameter, through Andrews Knowes Wood to a tank about a quarter of a mile north of

Rowanburn. The capacity of this tank is about 10,000 gallons. From it the water is led to standpipes in the village, and to the flushing tank on the sewerage system. A sample taken on 6th April showed a clear and bright appearance in a two-foot tube, and gave the following chemical results :—

	Grains per gallon.	
Total Solid Residue	...	7.95
Saline Residue	... ..	7.39
Volatile Matter	... ..	.56
Chlorine	... ..	.77
Nitrates ( $N_2O_5$ )	... ..	1.09
Nitrites	... ..	nil.
Free Ammonia	... ..	.000406
Albuminoid Ammonia	... ..	.0035

In the baeteriological examination the organisms developing on gelatin at room temperature were 10 per c.e. ; on agar at blood heat, none ; and *B. coli* were absent from quantities of 100 c.e.

### Disposal of Sewage and Pollution of Streams.

There are now six special Drainage Distriets, viz. :—Kirkconnel, Moniaive, Penpont, Thornhill, Gleneaple, and Rowanburn, the last of these being formed during 1920.

An enlargement of the Sewage Works at Kirkconnel will be necessary because of the new housing scheme. At Moniaive no complete system of sewerage has been laid, and no disposal works installed. The sewage of Penpont is led into a cesspool with an overflow to the Scaur. The effluent is not quite clear, but is not complained of. In Thornhill the sewage works have been allowed to get into a very unsatisfactory state, and there have been complaints of pollution of the Nith. Messrs D. Balfour & Son, of Newcastle and Edinburgh, reported on the works in 1912, and made certain recommendations, none of which have been carried out, and now the cost of doing so appears to be prohibitive. The sewage of Gleneaple is discharged



into the estuary of the Nith. The sewage of Rowanburn is passed without any purification into the stream of the same name, a tributary of the Liddle. This will probably have to be corrected some time, but at the present prohibitive prices there is no surprise at the desire to postpone as long as possible.

The effluents from the various Burgh disposal works have not attracted serious attention, and there has not yet been any call made on Langholm to instal works.

As already indicated, a special report was called for by the Board of Health on the proposals for disposing of sewage at the sites selected in Annan District for the housing schemes. These sites were at Northfield and Newbie, in the Parish of Annan; at Dornock, Eastriggs, and Gretna, north of Chapelknowe, in Half-Morton; at Newton and Merkland, in Kirkpatrick-Fleming; at Kirtlebridge Old Inn, Kirtlebridge and Hass, in Middlebie; and at Kelhead and near the Public School, in Cummertres. On 9th August I reported through the District Clerk:—

“ I have now examined the site plans and visited the  
 “ proposed sites of roadmen's, &c., cottages with special  
 “ reference to the question of the disposal of the sewage. I  
 “ understand that it is proposed to fit baths and water-  
 “ closets in all the cottages.

“ In one instance (Northfield, 10 houses) it is suggested  
 “ that a filtration plant should be installed to purify the  
 “ sewage before it is passed into the Gullieland Burn. If a  
 “ suitable plant is established and properly attended to  
 “ the result should be satisfactory, and questions of con-  
 “ travention of the Rivers Pollution Prevention Acts would  
 “ not arise. As showing that this stream is rather narrowly  
 “ watched, I may remind the District Committee that such  
 “ questions did arise lower down some years ago and that  
 “ a plant to purify the sewage from the Distillery Cottages  
 “ was erected. In another instance (Newton, 6 houses)  
 “ a purification plant is advised. I understand, however,

“ that this site is now departed from, and that another has  
 “ been chosen on the west side of the road leading to Chapel-  
 “ knowe. I do not know what the proposals may be here,  
 “ but as the discharge will be into Kirkpatrick Burn, I am  
 “ of opinion that a purification plant should be installed.  
 “ Otherwise questions of pollution may very well arise.

“ In most of the other cases it is proposed to trust to  
 “ cesspools with overflows. In Dornock and Cummertrees  
 “ (near School and at Kelhead) these overflows are into  
 “ existing drains, which eventually find their way into  
 “ water-courses. In Gretna, Half-Morton, Merkland,  
 “ Kirtlebridge, Hass, and Kirtlebridge Old Inn, they are  
 “ to be taken direct to streams. It is proposed generally  
 “ that the tail drains should be of fireclay, but four or five  
 “ yards from the burn would be ordinary field tiles. The  
 “ trench would be taken out one foot below the bed of the  
 “ tile, and the whole filled with stones and gravel. I  
 “ imagine this proposal will not apply in the cases of Dornock,  
 “ Cummertrees, and Kelhead. In these, and particularly  
 “ at Kelhead, the volume of water into which the drain  
 “ discharges is comparatively small, and the addition of  
 “ water-closet discharge, even through a cesspool, is very  
 “ likely to create nuisance and raise questions with pro-  
 “ prietors and farmers which the District Committee might  
 “ find it difficult to answer.

“ A cesspool in itself is not a sufficient purifier of  
 “ sewage. It retains solids, but the liquids which pass  
 “ from it are unstable—apt to break down and create a  
 “ nuisance in any stream into which they may be discharged.  
 “ The smaller the stream the more likely is this to occur.  
 “ The need for further purification is reflected in the  
 “ suggestion to form the last four or five yards of the tail  
 “ drain of field tiles laid over a bed of stones and gravel.  
 “ How far this may be effectual in purifying and oxidising  
 “ the unstable liquid before it reaches the stream it is  
 “ difficult to say. The results of sub-irrigation in gardens  
 “ show that the disposal of liquid wastes through field



“ tiles is fairly successful for a time, but that later the  
 “ ground becomes ‘sewage-sick.’ It is very likely that  
 “ the same condition would occur in a filter trench such  
 “ as is contemplated. There is also no guarantee that  
 “ all the liquid would pass through the filter. I regard  
 “ the method proposed as experimental—likely to prove  
 “ successful for a time, but with a risk of giving less satis-  
 “ faction later on. If this should happen it would, of  
 “ course, be possible to clean out the trench and renew the  
 “ filtering medium (stones and gravel); but from the point  
 “ of view of preventing contravention of the Rivers  
 “ Pollution Prevention Acts or questions at common law,  
 “ there is no doubt that suitable sewage purifying installa-  
 “ tions properly attended to would be more effectual.

“ I have not dealt with proposals for houses which  
 “ may be erected in the area of either Township or at  
 “ Newbie, where there are sewers discharging into the sea.  
 “ No question would be likely to arise about such houses  
 “ individually.”

Two complaints were received in April of the presence of coal-washing effluents in the Nith above Kirkeonnel. As these effluents evidently came from Cumnock, the attention of the County Medical Officer at Ayr was called to them in order that steps might be taken to get those responsible for their appearance in Dumfriesshire to have regard to the law as well as to neighbourliness.

One complaint of discharge from settling ponds into the Wanlock was received in March. The attention of the Lead Mining Company was drawn to it, and no further complaints were made during the year.

Small local pollutions of the Forge Race from Jubilee Buildings at Crawick and of a ditch at Burnbraes, near Thornhill, were also received. At the former a fence was put up to prevent, as far as possible, the throwing of refuse into the race, and at the latter the ditch which received the sewage of twelve houses was cleaned out.

### Cleansing and Scavenging.

There are four Special Scavenging Districts, viz., Kirkcannel, Thornhill, Ecclefechan, and Rowanburn, this last being formed in 1920. The work appears to be, on the whole, satisfactorily performed.

Ashpit nuisances still give trouble, more particularly at Penpont, Kingholm, Wellgreen, Locharbriggs, Eaglesfield, and Watchhill.

### Dairies.

The Veterinary and Dairy Inspector reports that there were 390 dairies on the Register at 1st January, and 401 at 31st December, 1920—127 in Thornhill District, 93 in Dumfries, 69 in Annan, 98 in Lockerbie, and 14 in Langholm. Eleven applications for registration were received. Owing to difficulties of transport and to other circumstances (more especially work under the Contagious Diseases Animals Acts), only 126 visits of inspection were made. The results of these visits, however, showed the great need for reform in many of the dairies, more particularly in those put on the Register in the closing years of the war and since. The efforts of the representatives of the Milk Control appear to have been directed rather to securing quantity than quality of milk, and many of the premises registered would not have been had the Milk and Dairies (Scotland) Act, instead of the Dairies Order, been in operation.

### Slaughter-Houses.

There are twelve licensed Slaughter-houses—seven in Thornhill, one in Dumfries, one in Annan, two in Lockerbie and one in Langholm Districts. The slaughter-house at Racks, in Dumfries District, was extended during the year, a much-needed improvement, as the business done was much beyond the capacity of the premises. A complaint of slaughtering in unlicensed premises in Langholm District was received. On being investigated, it was found that the

slaughtering was confined to pigs, the carcasses being sent to a Bacon Factory. It was admitted that the number of pigs dealt with each week would be about 12 to 14. This was afterwards departed from as an exaggeration, but as pigs were being brought in for slaughter, the owner of the premises was advised to apply for a license.

### Offensive Trades.

The premises sanctioned and licensed for these are :—

- (1) A Bone-boiling Business at Thornhill.
- (2) A Knackery at Mossparke.
- (3) A Manure Manufactory at Mossparke.
- (4) A Tallow-melting Factory at Raeks.

The Bone-boiling at Thornhill is carried out in Steam Digestors—closed vessels which prevent the escape of effluvia, so that nuisance is prevented. The Knackery and Manure Manufactory at Mossparke are sometimes the subject of complaint, but less so than in former years. The premises are, however, still open to improvement. The complaints of offensive odours from the Tallow Factory at Raeks have not recurred since arrangement was made for carrying effluvia from the digestors to the furnace instead of the chimney, in which they were not sufficiently destroyed.

### Factories and Workshops.

Seventy-nine visits have been paid to these and to premises of outworkers, all of which have been found in a satisfactory state. No intimations have been received from the Inspector of Factories during the year.

## BURGH OF ANNAN.

Area, 383 acres.

**Population.**—The Census (1911) population was 4219 (male 1959, female 2260). The estimated population for 1920 was 4058 (male 1869, female 2189).

**Births.**—The number registered in the Burgh during the year was 105 (47 male, 58 female). The rate per 1000 living was 25·874. This is above the average for the past nine years (1911-19), which was 21·062, but below the averages of the two previous decades—29·692 in 1891-1900; 28·947 in 1901-10.

Eight births, or 7·6 per cent., were illegitimate. The rate per 1000 unmarried women and widows living between the ages of 15 and 45 (estimated at 595) was 13·445.

The legitimate birth-rate per 1000 married women living between the ages of 15 and 45 (estimated at 413) was 234·866.

Only 53 births were intimated under the provisions of the Notification of Births Acts. They included two premature and two still births. There are no midwives within the meaning of the Midwives (Scotland) Act, 1915, known to be practising in the area.

**Deaths.**—The number registered was 54. Three deaths of non-residents fall to be deducted, and ten of usual residents which occurred elsewhere to be added, making the number for statistical purposes 61, of whom 27 were male and 34 female. The crude death-rate, that is, the death-rate on the registered figures only, was 13·307 per 1000; on the figures adjusted for transfers in and out, 15·031, which the correction for age and sex-distribution (factor ·9628) reduces to 14·472. The average corrected death-rate during the past nine years has been 15·565; during the decade 1901-10 it was 14·946, and during 1891-1900, 20·903. The deaths from various causes are shown in age groups in the following table:—

## BURGH OF ANNAN.—DEATHS IN 1920.

CAUSE OF DEATH.	All ages.	-1	1-	5-	10-	15-	25-	35-	45-	55-	65-	75-	Rate per 10
Enteric Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhus Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Smallpox . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles . . .	2	1	...	1	...	...	...	...	...	...	...	...	4
Scarlet Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping-cough . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria . . .	2	...	1	1	...	...	...	...	...	...	...	...	4
Influenza . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Phthisis . . .	6	...	...	...	...	1	1	2	2	...	...	...	1.4
Tuberculous Meningitis . . .	2	...	1	1	...	...	...	...	...	...	...	...	4
Abdominal Tuberculosis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases . . .	1	...	...	...	...	...	1	...	...	...	...	...	2
Malignant Diseases . . .	3	...	...	...	...	...	...	...	...	2	1	...	7
Rheumatic Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis . . .	1	...	...	1	...	...	...	...	...	...	...	...	2
Organic Heart Disease . . .	12	...	...	...	...	1	1	3	1	2	3	1	2.8
Bronchitis . . .	1	...	...	...	...	...	...	...	...	...	...	1	2
Pneumonia (all forms) . . .	6	2	1	...	...	...	...	1	...	...	1	1	1.4
Other Respiratory Diseases . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis (under 2 years) . . .	1	1	...	...	...	...	...	...	...	...	...	...	2
Appendicitis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Liver Diseases (not Malignant) . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Digestive Diseases . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Nephritis (Bright's Disease) . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Sepsis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases and Accidents of Pregnancy, &c. . .	1	...	...	...	...	1	...	...	...	...	...	...	2
Congenital . . .	4	4	...	...	...	...	...	...	...	...	...	...	9
Violence (excluding Suicide) . . .	1	...	...	...	1	...	...	...	...	...	...	...	2
Suicide . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Defined Diseases . . .	17	...	...	1	...	...	...	1	2	3	4	6	4.0
Ill-Defined Diseases . . .	1	...	1	...	...	...	...	...	...	...	...	...	2
TOTAL . . .	61	8	4	5	1	3	3	7	5	7	9	9	14.4

Deaths under one year of age were 8 (3 male, 5 female). The infantile mortality (calculated per 1000 births) was 76. The average of this rate during 1891-1910 was 123. During the past nine years (1911-19) it has been 86. The summary required by the Board is given below:—

### BURGH OF ANNAN.

*Return of Infantile Mortality for the Year ending 31st December, 1920, showing net Deaths from stated causes at various ages under 1 year of age.*

CAUSE OF DEATH.	Under 1 week.	1 and under 2 weeks.	2 and under 3 weeks.	3 and under 4 weeks.	Total under 4 weeks.	4 weeks and under 3 months.	3 and under 6 months.	6 and under 9 months.	9 and under 12 months.	Total deaths under 1 year.
All Causes { Certified Uncertified	2 ...	... ...	1 ...	... ...	3 ...	3 ...	... ...	1 ...	1 ...	8 ...
Smallpox . . . . .	...	...	...	...	...	...	...	...	...	...
Chickenpox . . . . .	...	...	...	...	...	...	...	...	...	...
Measles . . . . .	...	...	...	...	...	...	...	...	...	...
Scarlet Fever . . . . .	...	...	...	...	...	...	...	1	...	1
Whooping-cough . . . . .	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup . . . . .	...	...	...	...	...	...	...	...	...	...
Erysipelas . . . . .	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis . . . . .	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis . . . . .	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases . . . . .	...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous) . . . . .	...	...	...	...	...	...	...	...	...	...
Convulsions . . . . .	...	...	...	...	...	...	...	...	...	...
Pneumonia (all forms) . . . . .	...	...	...	...	...	1	...	...	1	2
Bronchitis . . . . .	...	...	...	...	...	...	...	...	...	...
Laryngitis . . . . .	...	...	...	...	...	...	...	...	...	...
Diarrhoea and Enteritis . . . . .	...	...	...	...	...	1	...	...	...	1
Other Digestive Diseases . . . . .	...	...	...	...	...	...	...	...	...	...
Congenital Malformations . . . . .	...	...	...	...	...	...	...	...	...	...
Premaature Birth . . . . .	2	...	1	...	3	...	...	...	...	3
Atrophy, Debility, and Marasmus . . . . .	...	...	...	...	...	1	...	...	...	1
Atelectasis . . . . .	...	...	...	...	...	...	...	...	...	...
Injury at Birth . . . . .	...	...	...	...	...	...	...	...	...	...
Suffocation, Overlying . . . . .	...	...	...	...	...	...	...	...	...	...
Syphilis . . . . .	...	...	...	...	...	...	...	...	...	...
Rickets . . . . .	...	...	...	...	...	...	...	...	...	...
All other causes . . . . .	...	...	...	...	...	...	...	...	...	...
TOTAL . . . . .	2	...	1	...	3	3	...	1	1	8

Net Births in the year—Legitimate, 97.  
                                  Illegitimate, 8.

Net Deaths in the year ( Legitimate, 5.  
                                  under one year of age ( Illegitimate, 3.



AGES AT DEATH.—Of the 61 deaths,

8 or 13·11 per cent. were under 1 year of age ;  
 4 or 6·56 per cent. were over 1 but under 5 ;  
 5 or 8·20 per cent. were over 5 but under 10 ;  
 1 or 1·64 per cent. were over 10 but under 15 ;  
 3 or 4·92 per cent. were over 15 but under 25 ;  
 3 or 4·92 per cent. were over 25 but under 35 ;  
 7 or 11·47 per cent. were over 35 but under 45 ;  
 5 or 8·20 per cent. were over 45 but under 55 ;  
 7 or 11·47 per cent. were over 55 but under 65 ;  
 9 or 14·75 per cent. were over 65 but under 75 ;  
 9 or 14·75 per cent. were over 75.

**Infectious Diseases.**—Thirty-six notifications were received—twenty-one under the provisions of the Infectious Diseases (Notification) Act, 1889, fourteen in terms of Regulations made under Section 78 of the Public Health (Scotland) Act, 1897, and one under provisions of the Infectious Diseases (Notification) Act as extended by the Local Authority (Town Council). They include 9 cases of Scarlet Fever, 9 of Diphtheria, 3 of Erysipelas, 3 of Chickenpox, and 12 of Tuberculosis.

The nine cases of Scarlet Fever occurred in seven families, six having one case in each and one having three. The incidence over the year was—two in January, one in July, one in September, and five in December. All the patients were in the group age 5 to 15, four of them being 11 years old. Eight cases were removed to Hospital. There were no fatalities. The number of cases notified, &c., during the past five years have been :—

			1916.	1917.	1918.	1919.	1920.
Cases	...	...	3	39	5	14	9
Deaths	...	...	0	0	0	0	0
Sickness rate per 1000							
persons	...	...	0.61	7.06	0.91	3.33	2.22
Mortality-rate	per						
1000 persons	...		nil.	nil.	nil.	nil.	nil.
Fatality-rate per 1000							
eases	...	...	nil.	nil.	nil.	nil.	nil.

Diphtheria was notified from eight families, there being seven with one ease in each and one with two. The incidence over the year was—two in April, one in May, three in September, two in October, and one in November. Swabs were obtained from all. In four they were positive, in five negative, but a positive swab was obtained from one of the latter after an interval of 12 days. There were two fatalities. The eases notified, &c., during the past five years were :—

			1916.	1917.	1918.	1919.	1920.
Cases notified	...		70	37	18	21	9
Deaths	...	...	8	5	2	1	2
Sickness-rate per 1000							
persons	...	...	14.35	6.70	3.26	4.99	2.22
Mortality-rate per 1000							
persons	...	...	1.58	0.87	0.35	0.23	0.47
Fatality-rate per 1000							
cases	...	...	114.	135.	111.	47.	222

Under the arrangement with the County Council for dealing with Tuberculosis, eight of the eases notified in 1920 and one notified in 1919 were sent to Sanatoria or Hospitals. A copy of the return of Notifications made to the Board of Health is appended :—

## BURGH OF ANNAN.

A.—NUMBER OF CASES NOTIFIED TO THE MEDICAL OFFICER OF HEALTH UNDER THE INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.

DISEASE.	At all Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	Cases removed to Hospital.	Cases not re-moved to Hospital.
Typhoid or Enteric Fever	...	...	...	...	...	...	...	...	...	...
Typhus Fever	...	...	...	...	...	...	...	...	...	...
Smallpox	...	...	...	...	...	...	...	...	...	...
Scarlet Fever or Scarlatina	9	...	...	9	...	...	...	...	8	1
Diphtheria and Membranous Croup	9	...	6	2	1	...	...	...	9	...
Erysipelas	3	...	...	...	...	...	1	2	...	3
Puerperal Fever	...	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...
Relapsing Fever	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	...	...
TOTAL	21	...	6	11	1	...	1	2	17	4

B.—NOTIFIED IN TERMS OF REGULATIONS MADE UNDER SECTION 78 OF THE PUBLIC HEALTH (SCOTLAND) ACT, 1897.

Chickenpox	...	2	...	1	...	...	...	...	...	2
Pulmonary Tuberculosis	7	...	...	1	2	2	1	1	5	2
Non-Pulmonary Tuberculosis	5	...	...	1	1	2	1	...	3	2
GRAND TOTAL	35	1	6	14	4	4	3	3	25	10

C.—DISEASES TO WHICH THE PROVISIONS OF THE INFECTIOUS DISEASE (NOTIFICATION) ACT HAVE BEEN EXTENDED BY THE LOCAL AUTHORITY.

Chickenpox	...	1	...	...	...	...	...	...	...	1
------------	-----	---	-----	-----	-----	-----	-----	-----	-----	---

No cases of Smallpox were notified, but in August the Burgh had a narrow escape from an outbreak. On 22nd August a message was received from the Medical Officer of Health of Hawarden Rural District that a typical case of Smallpox had been reported to him on the previous day, and that he had ascertained that the patient, a boy of ten, had left Annan on 17th August. Enquiry at the address given showed that the boy had been in Glasgow for five or six weeks, that he had broken his homeward journey from Glasgow and stayed in Annan three days, one of which he passed in bed, so that he had evidently been sickening for the disease while in Annan. Certain of the contacts had gone to Kirkealdy. This involved telegraphing and writing to the Medical Officer of Health to enable him to take steps locally. Revaccination and observation during the period of incubation were carried out, fortunately with good results in both Annan and Kirkealdy.

One hundred and sixty-four tubes of vaccine lymph were distributed to practitioners in Annan for revaccinations.

Thirty-one intimations of objections to vaccination of infants were made to the Registrar.

**Housing.**—Certificates were granted in the case of Fruid's Park Cottage and 2, 3, and 5 Murrayfield Cottages that they were nuisances and dangerous or injurious to health. A special report was also made on twenty-four houses in Lady Street, Back Lady Street, Haining's Court, Butt Street, George Street, Church Street, Kerr's Close, Commercial Court, and Gavin's Court, showing that at least twenty-one suffered badly from damp, eight were overcrowded, and all of them in a serious state of disrepair, and in addition falling short of modern standards of habitability in regard to such matters as facilities for washing and drying cloths, through ventilation, and air space. Certain of them, indeed, had been closed, but re-opened in consequence of the housing pressure, which was particularly felt in Annan as a result of developments at Gretna during

the war. There is, therefore, ample need not only for the scheme providing new houses but also for improvements on existing houses, which are not being carried out because of the prevailing high prices of material and labour. The war, with its attendant evils, suspended the work that was being done in the way of provision of water and sinks, and 171 houses still remain without these.

**Water Supply.**—I am not aware whether any samples have been taken for analysis. The supply has been reported as abundant. There has been an improvement effected on the reservoir in the way of removal of a large amount of vegetable matter from the north end, but the clear water tank is still open to the entrance of leaves, dust, and to the growth of algæ, which would be avoided if it were covered.

**Sewerage.**—This has been well attended to by the Burgh Surveyor, and nothing appears to have occurred calling for comment. Certain of the private house drains require overhauling, which, in view of the high prices, has not been pressed.

**Dairies.**—There are three cowsheds and nine cows, two milkshops, and four purveyors by vans. These have been kept under observation by the Sanitary Inspector, who reports that premises have been found to be kept in accordance with the Dairies, Cowsheds, and Milkshops Order.

**Unsound Food.**—Nineteen seizures were made. They included 500 stones of beef, 116 lbs. of mutton, and 20 stones of pork, which were certified as unfit for the food of man and destroyed by Magistrates' warrant. 127 lbs. of fruit and one barrel of herrings were destroyed with the consent of the owners.

**Slaughter-house.**—This has been found in a good and cleanly condition whenever inspected. The congestion of

the control period has been greatly relieved by decontrol. There have been fewer cattle and sheep slaughtered. Seizures were, as already indicated, nineteen, a drop from forty-five in the previous year. There was one complaint of smell from slaughter-house refuse, which was quickly remedied.

The **Fellmonger's Premises** continue to be kept in satisfactory order.

There are now 68 **Workshops** on the Register. These have always been found in a satisfactory state, well ventilated, and free from overcrowding.



## BURGH OF SANQUHAR.

**Area,** 349 acres.

**Population.**—At the Twelfth Decennial Census (1911) this was 1508 (males 752, females 756). The estimated population for 1920 was 1829 (males 906, females 923).

**Births.**—The births registered in the Burgh were 64 (25 male, 39 female). The rate per 1000 was 34·992. The average rate for the past nine years (1911-19) was 23·800 ; for the decade 1901-10, 25·030 ; for 1891-1900, 26·760.

Seven births, or 10·9 per cent., were illegitimate. The rate per 1000 unmarried women and widows living between the ages of 15 and 45 (estimated at 266) was 26·32.

The legitimate birth-rate per 1000 married women living between the ages of 15 and 45 (estimated at 187) was 304·81.

Fifty-six births were intimated under the provisions of the Notification of Births Acts. There were no premature or still births. Twins were reported twice. There are no midwives within the meaning of the Midwives (Scotland) Act, 1915, practising in the Burgh.

**Deaths.**—The number registered was 25. Two deaths of non-residents require to be deducted, and six deaths of usual residents which occurred elsewhere to be added, making the total 29. Of these, 12 were male and 17 female. The table below shows the deaths classified as to cause and in age-groups. The rate per 1000 living was 15·855 ; corrected for age and sex-distribution it was 15·570. The average corrected death-rate for the previous nine years (1911-19) was 13·907 ; for the decade 1901-10, 18·188 ; and for 1891-1900, 17·018.

## BURGH OF SANQUHAR.—DEATHS IN 1920.

CAUSE OF DEATH.	All ages.	-1	1-	5-	10-	15-	25-	35-	45-	55-	65-	75-	Rates per 1000.
Enteric Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhus Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Smallpox . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping-cough . . .	1	1	...	...	...	...	...	...	...	...	...	...	537
Diphtheria . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Phthisis . . .	2	...	...	...	...	1	1	...	...	...	...	...	1074
Tuberculous Meningitis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases . . .	1	...	...	...	...	...	...	1	...	...	...	...	537
Malignant Diseases . . .	3	...	...	...	...	...	...	...	...	3	...	...	1610
Rheumatic Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Organic Heart Disease . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis . . .	1	1	...	...	...	...	...	...	...	...	...	...	537
Pneumonia (all forms) . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Respiratory Diseases . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis (under 2 years) . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Appendicitis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Liver Diseases (not Malignant) . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Digestive Diseases . . .	1	...	...	...	...	...	...	...	...	...	1	...	537
Nephritis (Bright's Disease) . . .	1	...	...	...	...	...	...	...	1	...	...	...	537
Puerperal Sepsis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases and Accidents of Pregnancy, &c. . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Congenital . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Violence (excluding Suicide) . . .	4	...	1	...	...	...	...	...	1	1	...	1	2147
Suicide . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Defined Diseases . . .	14	1	...	...	...	...	1	...	...	3	2	7	7516
Ill-Defined Diseases . . .	1	...	...	...	...	...	...	...	...	...	...	1	537
TOTAL . . .	29	3	1	...	...	1	2	1	2	7	3	9	15570

Deaths under one year of age were 3 (2 male, 1 female). The infantile mortality-rate (calculated per 1000 births) was 46·9. The average of this rate during the period 1891-1910 was 106. During the past nine years (1911-19) it has been 93. The summary required by the Board of Health is given in the table below :—

### BURGH OF SANQUHAR.

*Return of Infantile Mortality for the Year ending 31st December, 1920, showing net Deaths from stated causes at various ages under 1 year of age.*

CAUSE OF DEATH.	Under 1 week.	1 and under 2 weeks.	2 and under 3 weeks.	3 and under 4 weeks.	Total under 4 weeks.	4 weeks and under 3 months.	3 and under 6 months.	6 and under 9 months.	9 and under 12 months.	Total Deaths under 1 year.
All Causes { Certified . . . . .	...	1	...	...	1	1	1	...	...	3
{ Uncertified . . . . .	...	...	...	...	...	...	...	...	...	...
Smallpox . . . . .	...	...	...	...	...	...	...	...	...	...
Chickenpox . . . . .	...	...	...	...	...	...	...	...	...	...
Measles . . . . .	...	...	...	...	...	...	...	...	...	...
Scarlet Fever . . . . .	...	...	...	...	...	...	...	...	...	...
Whooping-cough . . . . .	...	...	...	...	...	...	1	...	...	1
Diphtheria and Croup . . . . .	...	...	...	...	...	...	...	...	...	...
Erysipelas . . . . .	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis . . . . .	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis . . . . .	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases . . . . .	...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous) . . . . .	...	...	...	...	...	...	...	...	...	...
Convulsions . . . . .	...	...	...	...	...	...	...	...	...	...
Pneumonia (all forms) . . . . .	...	...	...	...	...	...	...	...	...	...
Bronchitis . . . . .	...	...	...	...	...	1	...	...	...	1
Laryngitis . . . . .	...	...	...	...	...	...	...	...	...	...
Diarrhoea and Enteritis . . . . .	...	...	...	...	...	...	...	...	...	...
Other Digestive Diseases . . . . .	...	...	...	...	...	...	...	...	...	...
Congenital Malformations . . . . .	...	...	...	...	...	...	...	...	...	...
Premature Birth . . . . .	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, and Marasmus . . . . .	...	...	...	...	...	...	...	...	...	...
Atelectasis . . . . .	...	...	...	...	...	...	...	...	...	...
Injury at Birth . . . . .	...	...	...	...	...	...	...	...	...	...
Suffocation, Overlying . . . . .	...	...	...	...	...	...	...	...	...	...
Syphilis . . . . .	...	...	...	...	...	...	...	...	...	...
Rickets . . . . .	...	...	...	...	...	...	...	...	...	...
All other causes . . . . .	...	1	...	...	1	...	...	...	...	1
TOTAL . . . . .	...	1	...	...	1	1	1	...	...	3

Net Births in the year—Legitimate, 57.  
Illegitimate, 7.

Net Deaths in the year / Legitimate, 3.  
under one year of age / Illegitimate, 0.

AGES AT DEATH.—Of the 29 deaths,

- 3 or 10·34 per cent. were under 1 year of age ;
- 1 or 3·45 per cent. were over 1 but under 5 ;
- 1 or 3·45 per cent. were over 15 but under 25 ;
- 2 or 6·90 per cent. were over 25 but under 35 ;
- 1 or 3·45 per cent. were over 35 but under 45 ;
- 2 or 6·90 per cent. were over 45 but under 55 ;
- 7 or 24·14 per cent. were over 55 but under 65 ;
- 3 or 10·34 per cent. were over 65 but under 75 ;
- 9 or 31·03 per cent. were over 75.

**Infectious Diseases.**—The number of notifications received was 40. Twenty-seven were made under the provisions of the Infectious Disease (Notification) Act, 1889, and thirteen in terms of Regulations made under Section 78 of the Public Health (Scotland) Act, 1897. They included 27 of Diphtheria, 1 of Ophthalmia Neonatorum, 1 of Chickenpox, 7 of Pneumonia, and 4 of Tuberculosis.

The cases of Diphtheria occurred in the latter half of the year—7 in September, 10 in October, 8 in November, and 2 in December. Twenty-three families were affected, nineteen having one case and four having two in each. Swabs from seventeen gave positive results, from ten negative. There were no fatalities. The cases notified during the past five years have been :—

	1916.	1917.	1918.	1919.	1920.
Cases     ...     ...     ...	3	1	0	1	27
Deaths    ...     ...     ...	0	0	0	0	0
Sickness-rate per 1000 persons	1·87	0·65	...	0·61	14·76
Death-rate per 1000 persons	nil.	nil.	nil.	nil.	nil.
Fatality-rate per 1000 cases	nil.	nil.	nil.	nil.	nil.

All the cases of Diphtheria and two of Tuberculosis were sent to Hospital.

No case of Smallpox occurred, but on account of the prevalence of the disease in Glasgow and the West of Scotland, re-vaccination was advised, and made available for those who desired it. Twelve objections to vaccination of infants were intimated to the Registrar.

A copy of the return of Infectious Disease Notification to the Board of Health is given on page 59.

# BURGH OF SANQUHAR.

A.—NUMBER OF CASES NOTIFIED TO THE MEDICAL OFFICER OF HEALTH UNDER THE INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.

DISEASE.	At all Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	Cases removed to Hospital.	Cases not re-moved to Hospital.
Typhoid or Enteric Fever	...	...	...	...	...	...	...	...	...	...
Typhus Fever	...	...	...	...	...	...	...	...	...	...
Smallpox	...	...	...	...	...	...	...	...	...	...
Scarlet Fever or Scarlatina	...	...	...	...	...	...	...	...	...	...
Diphtheria and Membranous Croup	27	...	4	19	2	2	...	...	27	...
Erysipelas	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	...	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...
Relapsing Fever	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	...	...
TOTAL	27	...	4	19	2	2	...	...	27	...

B.—NOTIFIED IN TERMS OF REGULATIONS MADE UNDER SECTION 78 OF THE PUBLIC HEALTH (SCOTLAND) ACT, 1897.

Ophthalmia Neonatorum	1	...	...	...	...	...	...	...	1	...
Chickenpox	1	...	...	1	...	...	...	...	1	...
Acute Primary Pneumonia	6	...	1	2	...	3	...	...	6	...
Acute Influenzal Pneumonia	1	...	...	...	...	...	1	...	1	...
Pulmonary Tuberculosis	3	...	...	...	2	1	...	...	1	2
Non-Pulmonary Tuberculosis	1	...	...	1	...	...	...	...	1	0
GRAND TOTAL	40	1	5	23	4	6	...	1	29	11



**Housing.**—The number of occupied houses enumerated in 1920 was 388. Complaints regarding the condition of five were made, certain of these being stimulated by the provision of the Increase of Rent and Mortgage Interest (Restrictions) Act, 1920. Five intimations of defects causing nuisance within the meaning of the Public Health (Scotland) Act, 1897, were made to persons responsible, as well as two reports to the Town Council. Sixteen plans were examined and reported on. Seven of them were for houses for which subsidy under the Housing (Additional Powers) Act, 1919, was claimed. Five were for additions to or alterations on existing houses, three for garages, and one for a piggery. A difficulty that occasionally occurred arose from certain of the plans not being sufficiently informative and necessitating further correspondence.

The **Common Lodging-house** has been found in good order when inspected, and no contraventions have been reported.

The **Water Supply** has not been complained of as in 1919, when houses in Howie's Road found themselves without an adequate supply. Mr Easton, who was called in to advise, recommended a scraping of the pipe supplying this area, which appears to have been attended with success. In one instance a property in the High Street was for a time without water on account of delay in having a burst pipe repaired, which necessitated the shutting off of the water to prevent loss. The results of four examinations made during the year (stated as grains per gallon), were :—

		1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
Total Solids	...	... 5.48	5.60	4.87	4.48
Saline Residue	...	... 4.87	4.99	4.15	4.20
Volatile Matter	...	... .61	.61	.72	.28
Chlorides	...	... .84	.77	.66	.77
Nitrates	...	... .049	.032	.03	.038
Free Ammonia	...	... .00061	.00046	.00056	.00064
Albuminoid Ammonia	...	... .0062	.00518	.0114	.00798
B. Coli found in	...	... 10 c.c.	1 c.c.	10 c.c.	10 c.c.

The chemical results are favourable ; the bacteriological are not.

**Sewerage.**—No complaints have been received of the effluent from the works at the south of the town, but the distributing channels are showing signs of sagging a little, and parts of the filter are in consequence not receiving tank effluent. At the north end the sewage from the Lochans, Qucensberry Square, and neighbourhood still passes to the river in its crude state. This is more noticeable as the channel tends to shift to the opposite side of the river.

**Dairies.**—These are still very much in the condition in which they were when specially reported on in 1911.

The **Slaughter-house** has been kept in fairly good condition. An anonymous complaint was received regarding the refuse which it was alleged was being deposited where it was creating a nuisance and polluting a water-course. When examined a nuisance was not found, but there was evidence of some risk of pollution of a stream which was used to water cattle, and also evidence of the presence of rats. A report was sent to the Town Clerk.

The carcase of an animal suffering from Tuberculosis was seized, and destroyed with consent.

The **Workshops** are nineteen in number, and are usually in a satisfactory state. No intimations have been received from the Factory Inspector, and no lists of Out-workers have been received.

## BURGH OF LOCKERBIE.

**Area,** 453 acres.

**Population.**—At the Twelfth Decennial Census (1911) this was 2455 (male 1139, female 1316). The estimated population for 1920 was 2296 (1029 male, 1267 female).

**Births.**—The births registered in the Burgh were 53 (29 male, 24 female). The rate per 1000 living was 23·083. The average birth-rate during the previous nine years (1911-19) was 20·104; during 1901-10, 21·299; and during 1891-1900, 26·706.

The illegitimate births were two, or 3·8 per cent. of the whole number. The rate per 1000 unmarried women and widows living between the ages of 15 and 45 (estimated at 360) was 5·555.

The legitimate birth-rate per 1000 married women living between 15 and 45 (estimated at 243) was 209·88.

Forty-nine births were intimated under the provisions of the Notification of Births Act. There was one premature, but no still births. There are no midwives within the meaning of the Midwives (Scotland) Act, 1915, known to be practising in the Burgh.

**Deaths.**—The number registered was 15. The deaths of six usual residents which occurred elsewhere have to be added, making the total 21, of whom 12 were male and 9 female. The table below shows the deaths classified as to cause and in age-groups. The rate per 1000 living was 9·146. Corrected for age and sex distribution (factor ·8896) this figure becomes 8·136. The average corrected death-rate for the previous nine years (1911-19) was 15·640; for 1901-10, 14·444; for 1891-1900, 15·009.

## BURGH OF LOCKERBIE.—DEATHS IN 1920.

CAUSE OF DEATH.	All ages.	-1	1-	5-	10-	15-	25-	35-	45-	55-	65-	75-	Rates per 1000.
Enteric Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhus Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Smallpox . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping-cough . . .	1	1	...	...	...	...	...	...	...	...	...	...	·387
Diphtheria . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Phthisis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Malignant Diseases . . .	1	...	...	...	...	...	...	...	...	1	...	...	·387
Rheumatic Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Endocarditis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Organic Heart Disease . . .	7	...	...	...	...	...	1	...	2	2	2	...	2·712
Bronchitis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia (all forms) . . .	1	...	...	...	...	...	1	...	...	...	...	...	·387
Other Respiratory Diseases . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis (under 2 years) . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Appendicitis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases (not Malignant) . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Digestive Diseases . . .	1	...	...	...	...	...	...	1	...	...	...	...	·387
Nephritis (Bright's Disease) . . .	1	...	...	...	...	...	...	...	...	...	1	...	·387
Septicæmic Sepsis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases and Accidents . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Of Pregnancy, &c. . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Congenital . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Violence (excluding Suicide) . . .	1	...	...	...	...	...	1	...	...	...	...	...	·387
Suicide . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Defined Diseases . . .	7	...	...	...	...	...	...	1	...	2	1	3	2·712
Undefined Diseases . . .	1	...	...	...	...	...	...	...	1	...	...	...	·387
TOTAL . . .	21	1	...	...	...	...	3	2	3	5	4	3	8·136

There was one death under one year of age. The infantile mortality rate (calculated per 1000 births) was 18.87. The average of this rate during 1891-1910 was 102. During the nine past years (1911-19) it has been 104. The summary required by the Board of Health is given in the table below:—

### BURGH OF LOCKERBIE.

*Return of Infantile Mortality for the Year ending 31st December, 1920, showing net Deaths from stated causes at various ages under 1 year of age.*

CAUSE OF DEATH.	Under 1 week.	1 and under 2 weeks.	2 and under 3 weeks.	3 and under 4 weeks.	Total under 4 weeks.	4 weeks and under 3 months.	3 and under 6 months.	6 and under 9 months.	9 and under 12 months.	Total deaths under 1 year.
All Causes { Certified Uncertified	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	1 ...	1 ...
Smallpox . . .	...	...	...	...	...	...	...	...	...	...
Chickenpox . . .	...	...	...	...	...	...	...	...	...	...
Measles . . .	...	...	...	...	...	...	...	...	...	...
Scarlet Fever . . .	...	...	...	...	...	...	...	...	...	...
Whooping-cough . . .	...	...	...	...	...	...	...	...	1	1
Diphtheria and Croup . . .	...	...	...	...	...	...	...	...	...	...
Erysipelas . . .	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis . . .	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis . . .	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases . . .	...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous) . . .	...	...	...	...	...	...	...	...	...	...
Convulsions . . .	...	...	...	...	...	...	...	...	...	...
Pneumonia (all forms) . . .	...	...	...	...	...	...	...	...	...	...
Bronchitis . . .	...	...	...	...	...	...	...	...	...	...
Laryngitis . . .	...	...	...	...	...	...	...	...	...	...
Diarrhoea and Enteritis . . .	...	...	...	...	...	...	...	...	...	...
Other Digestive Diseases . . .	...	...	...	...	...	...	...	...	...	...
Congenital Malformations . . .	...	...	...	...	...	...	...	...	...	...
Premature Birth . . .	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, and Marasmus . . .	...	...	...	...	...	...	...	...	...	...
Atelectasis . . .	...	...	...	...	...	...	...	...	...	...
Injury at Birth . . .	...	...	...	...	...	...	...	...	...	...
Suffocation, Overlying . . .	...	...	...	...	...	...	...	...	...	...
Syphilis . . .	...	...	...	...	...	...	...	...	...	...
Rickets . . .	...	...	...	...	...	...	...	...	...	...
All other causes . . .	...	...	...	...	...	...	...	...	...	...
TOTAL . . .	...	...	...	...	...	...	...	...	1	1

Net Births in the year—Legitimate, 51.  
Illegitimate, 2.

Net Deaths in the year / Legitimate 1,  
under one year of age / Illegitimate, 0.

AGES AT DEATH.—Of the 21 deaths,

- 1 or 4.76 per cent. were under 1 year of age ;
- 3 or 14.29 per cent. were over 25 but under 35 ;
- 2 or 9.52 per cent. were over 35 but under 45 ;
- 3 or 14.29 per cent. were over 45 but under 55 ;
- 5 or 23.81 per cent. were over 55 but under 65 ;
- 4 or 19.05 per cent. were over 65 but under 75 ;
- 3 or 14.29 per cent. were over 75.

**Infectious Diseases.**—Seven notifications were received—three under the provisions of the Infectious Disease (Notification) Act, 1889, two in terms of the Regulations made under Section 78 of the Public Health (Scotland) Act, 1897, and two under the provisions of the Infectious Disease (Notification) Act as extended by the Local Authority. They included 3 cases of Scarlet Fever, 1 of Malaria, 1 of Pulmonary Tuberculosis, and 2 of Chickenpox.

The cases of Scarlet Fever occurred in March, June, and August. All three were removed to Hospital, and there were no fatalities. The figures for the past five years have been :—

	1916.	1917.	1918.	1919.	1920.
Cases notified ... ..	23	20	9	2	3
Deaths ... ..	0	0	0	0	0
Sickness-rate per 1000 persons	10.64	3.89	3.87	0.91	1.31
Death-rate per 1000 persons	nil.	nil.	nil.	nil.	nil.
Fatality-rate per 1000 cases	nil.	nil.	nil.	nil.	nil.

The case of Malaria occurred in an ex-soldier who had acquired the disease while serving abroad.

The case of Pulmonary Tuberculosis was sent to Westmorland Sanatorium.



Chickenpox was made notifiable as a precaution against spread of Smallpox. Fortunately no cases of this latter disease occurred. On account of its prevalence in the West of Scotland re-vaccination was urged and facilities offered. It was largely taken advantage of, but actual figures are not available.

A copy of the Infectious Disease Notification Return to the Board of Health is given on page 67.

# BURGH OF LOCKERBIE.

A.—NUMBER OF CASES NOTIFIED TO THE MEDICAL OFFICER OF HEALTH UNDER THE INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.

DISEASE.	At all Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	Cases removed to Hospital.	Cases not re-moved to Hospital.
Typhoid or Enteric Fever	...	...	...	...	...	...	...	...	...	...
Typhus Fever	...	...	...	...	...	...	...	...	...	...
Smallpox	...	...	...	...	...	...	...	...	...	...
Scarlet Fever or Scarlatina	3	...	...	2	1	...	...	...	3	...
Diphtheria and Membranous Croup	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	...	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...
Relapsing Fever	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	...	...
TOTAL	3	...	...	2	1	...	...	...	3	...

B.—NOTIFIED IN TERMS OF REGULATIONS MADE UNDER SECTION 78 OF THE PUBLIC HEALTH (SCOTLAND) ACT, 1897.

Malaria	...	...	...	...	1	...	...	...	...	1
Pulmonary Tuberculosis	1	...	...	...	...	...	1	...	1	...
GRAND TOTAL	5	...	...	2	2	...	1	...	4	1

C.—DISEASES TO WHICH THE PROVISIONS OF THE INFECTIOUS DISEASE (NOTIFICATION) ACT HAVE BEEN EXTENDED BY THE LOCAL AUTHORITY.

Chickenpox	...	...	...	1	1	...	...	...	...	2
------------	-----	-----	-----	---	---	-----	-----	-----	-----	---

**Housing.**—The number of occupied houses in 1920 was 595. The scheme prepared under the Housing, Town-Planning, &c., Act, 1919, made progress, several being ready for occupation before the end of the year. This has to some extent relieved the pressure of housing shortage, and the completion of the scheme should leave the Burgh in a favourable position. Some of the existing houses will, however, require improvement, more particularly in the way of having through ventilation provided, several being of the type known as “back to back,” or presenting features similar to this.

The Sanitary Inspector, Mr W. F. Thomson, reports the receipt of eleven complaints, most of which were attended to on the spot. Two intimations were issued under Section 19 of the Public Health (Scotland) Act, 1897. No notices under Section 20 of the same Act were required.

The **Common Lodging-house**, which was inspected on twenty-six occasions, was always found in a satisfactory state.

The **Water Supply** was well maintained. The filter beds were cleaned out during the month of May. A sample taken on 21st September gave the following results (stated as grains per gallon):—

Total Solids...	...	...	9.61
Saline Residue	...	...	8.98
Volatile Matter	...	...	.63
Chlorine	...	...	.72
Nitrates ( $N_2O_5$ )	...	...	.0337
Nitrites	...	...	Nil.
Free Ammonia	...	...	.00074
Albuminoid Ammonia	...	...	.0091
B. Coli found in	...	...	100 c.e.

The sample contained vegetable matter partly in solution, partly in suspension.

The effluent from the **Sewage Works** cannot be said to be highly satisfactory. Probably, as indicated in previous reports, if the volume of water into which it is discharged were larger its condition would be less noticeable.

The **Slaughter-house** is very well conducted. Among the seizures made was one of a well-nourished animal which had not reacted well to the tuberculin test, and was consequently sent for slaughter and inspection. The latter showed the presence of tuberculosis in pleural and peritoneal cavities and in many of the lymphatic glands. The carcase was destroyed.

The **Creamery**, **Milkshop**, and **Cowbyres** continue to be well conducted.

The **Workshops** have been found in a cleanly state when visited by the Sanitary Inspector, and no notices or other proceedings have been required.

## BURGH OF MOFFAT.

**Area,** 305 aeres.

**Population.**—At the Twelfth Decennial Census (1911) this was 2079 (male 895, female 1184). The estimated population for 1920 was 2013 (male 912, female 1101).

**Births.**—The births registered were 41 (22 male, 19 female). The rate per 1000 living was 20·367. The average birth-rate of the previous nine years (1911-19) has been 15·889; of the decade 1901-10, 15·761; and for 1891-1900, 18·532.

Two of the births were illegitimate, giving a percentage of 4·9 to the total number, and a rate per 1000 unmarried women and widows living between 15 and 45 (estimated at 378) of 5·291.

The legitimate birth-rate per 1000 married women living between 15 and 45 (estimated at 148) was 263·51.

Thirty-eight births were intimated under the provisions of the Notification of Births Acts. They included two still-births. There are no midwives within the meaning of the Midwives (Scotland) Act, 1915, practising in the Burgh.

**Deaths.**—The number registered was 35. Three deaths of non-residents require to be deducted, and three of usual residents which occurred elsewhere to be added, leaving the total at 35. Fifteen were male and twenty female. The deaths classified according to cause and in age groups, are shown in the table below. The rate per 1000 living was 17·387; corrected for age and sex distribution (factor ·8495), this figure becomes 14·770. The average corrected rate for the previous nine years (1911-19) was 13·884; for the decade 1901-10, 12·025; and for 1891-1900, 15·695.

## BURGH OF MOFFAT.—DEATHS IN 1920.

CAUSE OF DEATH.	All ages.	-1	1-	5-	10-	15-	25-	35-	45-	55-	65-	75-	Rate per 1000.
Enteric Fever . . . . .	1	...	...	...	...	...	1	...	...	...	...	...	·422
Typhus Fever . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Smallpox . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping-cough . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Phthisis . . . . .	1	...	...	...	...	...	...	1	...	...	...	...	·422
Tuberculous Meningitis . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Malignant Diseases . . . . .	4	...	...	...	...	...	...	...	...	...	1	3	1·688
Rheumatic Fever . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis . . . . .	1	...	...	...	...	...	...	1	...	...	...	...	·422
Organic Heart Disease . . . . .	3	...	...	...	...	...	...	...	1	...	...	2	1·266
Bronchitis . . . . .	5	...	...	...	...	...	...	1	...	...	2	2	2·110
Pneumonia (all forms) . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Respiratory Diseases . . . . .	1	...	...	...	...	...	...	...	...	...	1	...	·422
Enteritis (under 2 years) . . . . .	1	1	...	...	...	...	...	...	...	...	...	...	·422
Appendicitis . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Liver Diseases (not Malignant) . . . . .	1	...	...	...	...	...	...	...	1	...	...	...	·422
Other Digestive Diseases . . . . .	2	...	...	...	...	...	...	1	...	...	1	...	·844
Nephritis (Bright's Disease) . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Sepsis . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases and Accidents of Pregnancy, &c. . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Congenital . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Violence (excluding Suicide) . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Suicide . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Defined Diseases . . . . .	14	1	...	...	...	...	...	...	1	1	4	7	5·907
Ill-Defined Diseases . . . . .	1	...	...	...	...	...	...	...	1	...	...	...	·422
TOTAL . . . . .	35	2	...	...	...	...	1	4	4	1	9	14	14·770



There were two deaths under one year of age. The infantile mortality rate (calculated per 1000 births) was 48.78. The average of this rate during 1891-1910 was 80. The average for the past nine years (1911-19) was 75. The summary required by the Board of Health is given in the table below :—

### BURGH OF MOFFAT.

*Return of Infantile Mortality for the Year ending 31st December, 1920, showing net Deaths from stated causes at various ages under 1 year of age.*

CAUSE OF DEATH.	Under 1 week.	1 and under 2 weeks.	2 and under 3 weeks.	3 and under 4 weeks.	Total under 4 weeks.	4 weeks and under 3 months.	3 and under 6 months.	6 and under 9 months.	9 and under 12 months.	Total Deaths under 1 year.
All Causes { Certified . . . . .	1	...	1	...	2	...	...	...	...	2
{ Uncertified . . . . .	...	...	...	...	...	...	...	...	...	...
Smallpox . . . . .	...	...	...	...	...	...	...	...	...	...
Chickenpox . . . . .	...	...	...	...	...	...	...	...	...	...
Measles . . . . .	...	...	...	...	...	...	...	...	...	...
Scarlet Fever . . . . .	...	...	...	...	...	...	...	...	...	...
Whooping-cough . . . . .	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup . . . . .	...	...	...	...	...	...	...	...	...	...
Erysipelas . . . . .	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis . . . . .	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis . . . . .	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases . . . . .	...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous) . . . . .	...	...	...	...	...	...	...	...	...	...
Convulsions . . . . .	...	...	...	...	...	...	...	...	...	...
Pneumonia (all forms) . . . . .	...	...	...	...	...	...	...	...	...	...
Bronchitis . . . . .	...	...	...	...	...	...	...	...	...	...
Laryngitis . . . . .	...	...	...	...	...	...	...	...	...	...
Diarrhoea and Enteritis . . . . .	...	...	...	...	...	...	...	...	...	...
Other Digestive Diseases . . . . .	...	...	1	...	1	...	...	...	...	1
Congenital Malformations . . . . .	...	...	...	...	...	...	...	...	...	...
Premature Birth . . . . .	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, and Marasmus . . . . .	...	...	...	...	...	...	...	...	...	...
Atelctasis . . . . .	...	...	...	...	...	...	...	...	...	...
Injury at Birth . . . . .	...	...	...	...	...	...	...	...	...	...
Suffocation, Overlying . . . . .	...	...	...	...	...	...	...	...	...	...
Syphilis . . . . .	...	...	...	...	...	...	...	...	...	...
Rickets . . . . .	...	...	...	...	...	...	...	...	...	...
All other causes . . . . .	1	...	...	...	1	...	...	...	...	1
TOTAL . . . . .	1	...	1	...	2	...	...	...	...	2

Net Births in the year.—Legitimate, 39.  
 Illegitimate, 2.

Net Deaths in the year { Legitimate Infants, 2,  
 under one year of age { Illegitimate Infants, 0.

AGES AT DEATH.—Of the 35 deaths,

- 2 or 5.71 per cent. were under 1 year ;
- 1 or 2.86 per cent. were over 25 but under 35 ;
- 4 or 11.43 per cent. were over 35 but under 45 ;
- 4 or 11.43 per cent. were over 45 but under 55 ;
- 1 or 2.86 per cent. were over 55 but under 65 ;
- 9 or 25.71 per cent. were over 65 but under 75 ;
- 14 or 40.00 per cent. were over 75.

**Infectious Diseases.**—Twenty-eight notifications were received—twenty under the provisions of the Infectious Disease (Notification) Act, 1889, and eight in terms of the Regulations made under Section 78 of the Public Health (Scotland) Act, 1897. They included 1 case of Enteric Fever, 18 of Scarlet Fever, 1 of Diphtheria, 1 of Malaria, 1 of Dysentery, and 6 of Tuberculosis. The case of Enteric Fever was not notified till after death, when no very definite history could be obtained.

The cases of Scarlet Fever were reported during the first four months of the year—in January 3, February 4, March 5, and April 6. At first the cases reported were among young adults ; only two of those notified in January and February were of school age. In March and April all the cases were among school children. The whole circumstances of the outbreak pointed to the fact that there were ambulant cases unnotified, and therefore probably quite unrecognised. Two such were actually found attending school. Certain of the others probably acquired infection at picture-house attendances. Fifteen families were affected, there being thirteen with one case in each, one with two, and one with three. All the patients were removed to Lochmaben Hospital. The notifications of this disease in the previous four years have been—0 in 1916, 1 in 1917, 1 in 1918, and 4 in 1919.

The case of Diphtheria occurred in November, the patient being a young adult, and the disease affecting the

larynx. Probably on this account, a swab taken from the pharynx gave a negative result. Tracheotomy was successfully performed in Hospital, and a good recovery followed.

The cases of Malaria and Dysentery were in ex-service men who had suffered while abroad.

Of the six cases of Tuberculosis, one was sent to Westmorland Sanatorium. A patient notified in the previous year was also sent in 1920 to the same Institution.

A copy of the Infectious Disease Return to the Board of Health appears on page 75.

# BURGH OF MOFFAT.

A.—NUMBER OF CASES NOTIFIED TO THE MEDICAL OFFICER OF HEALTH UNDER THE INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.

DISEASE	At all Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	Cases removed to Hospital.	Cases not re-moved to Hospital.
Typhoid or Enteric Fever	1	...	...	...	...	1	...	...	...	...
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...
Smallpox ...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever or Scarlatina ...	18	1	13	1	...	3	...	...	18	...
Diphtheria and Membranous Croup...	1	...	...	...	...	1	...	...	1	...
Erysipelas ...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever ...	...	...	...	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...	...	...
Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...
Continued Fever...	...	...	...	...	...	...	...	...	...	...
TOTAL ...	20	...	1	13	1	5	...	...	19	...

B.—NOTIFIED IN TERMS OF REGULATIONS MADE UNDER SECTION 78 OF THE PUBLIC HEALTH (SCOTLAND) ACT, 1897.

Malaria ...	1	...	...	...	...	1	...	...	...	1
Dysentery ...	1	...	...	...	...	1	...	...	...	1
Pulmonary Tuberculosis	6	...	...	...	1	4	...	1	1	5
GRAND TOTAL ...	28	...	1	13	2	11	...	1	20	7

**Housing.**—The inhabited houses were found, at an enumeration by the police, to be 521, an increase of twelve on the number for 1919.

**Water Supply.**—This is taken from springs on Granton, to the north of the Burgh. No complaints have been received, and the supply appears to have been quite satisfactory. The gathering-ground is good, and there are no likely sources of contamination. It is proposed to scrape the mains at an early date.

The **Sewage Works** have not been so frequently inspected as in pre-war days, but the effluent does not seem to produce such pollution as to cause complaint.

**Nuisances** dealt with by the Sanitary Inspector were sixty-three. Statutory notices under Section 20 of the Public Health (Scotland) Act, 1897, were not required in any case. The majority of the nuisances arose from choked drains, defective water-closets, and sanitary fittings.

The **Slaughter-house** belongs to the Local Authority. It is kept in a satisfactory state.

There are two **Milkshops**, from which milk produced outside the Burgh is sold. They have always been found in a clean and wholesome condition when inspected.

There are five **Bakehouses** and fifty-one other **Workshops** on the Register. Premises have usually been found clean and satisfactory.

## BURGH OF LANGHOLM.

Area, 204 acres.

**Population.**—At the Twelfth Decennial Census this was 2930 (male 1315, female 1615). The estimated population for 1920 was 2699 (male 1154, female 1545).

**Births.**—The births registered were 51 (27 male, 24 female). The rate per 1000 living was 18·896. The average birth-rate for the previous nine years (1911-19) was 14·598; for the decade 1901-10, 17·985; and for 1891-1900, 20·112.

Two of the births were illegitimate, giving a percentage of 3·92 to the total, and a rate of 4·158 per 1000 unmarried women and widows living between the ages of 15 and 45 (these being estimated at 481).

The legitimate birth-rate per 1000 married women living between the ages of 15 and 45 (estimated at 231) was 212·121.

Fifty-two intimations were received under the provisions of the Notification of Births Acts. They included one pair of twins, five of premature and three of still births, one of the latter being among the premature. There are no midwives within the meaning of the Midwives (Scotland) Act, 1915, known to be practising in the Burgh.

**Deaths.**—The number registered was 39. One death of a non-resident requires to be deducted, and the deaths of two usual residents which occurred elsewhere to be added, leaving the number at 40, of which 24 were male and 16 female. The table given below shows the deaths classified as to cause and in age-groups. The rate per 1000 living was 14·820; corrected for age and sex distribution (factor ·8714) it was 12·914. The average corrected death-rate of the nine previous years (1911-19) was 15·428; for 1901-10, 14·876; for 1891-1900, 14·545.



## BURGH OF LANGHOLM.—DEATHS IN 1920.

CAUSE OF DEATH.	All ages.	-1	1-	5-	10-	15-	25-	35-	45-	55-	65-	75-	Rates per 100
Enteric Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhus Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Smallpox . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping-cough . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Phthisis . . .	2	...	...	...	...	...	1	1	...	...	...	...	-64
Tuberculous Meningitis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Malignant Diseases . . .	6	...	...	...	...	...	...	...	...	2	3	1	1-93
Rheumatic Fever . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Organic Heart Disease . . .	9	...	...	...	...	...	1	...	1	2	2	3	2-90
Bronchitis . . .	1	...	...	...	...	...	...	...	...	...	...	1	-32
Pneumonia (all forms) . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Respiratory Diseases . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis (under 2 years) . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Appendicitis . . .	1	...	1	...	...	...	...	...	...	...	...	...	-32
Liver Diseases (not Malignant) . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Digestive Diseases . . .	2	1	...	...	...	...	...	...	...	1	...	...	-64
Nephritis (Bright's Disease) . . .	3	...	...	...	...	...	1	...	1	1	...	...	-90
Puerperal Sepsis . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases and Accidents of Pregnancy, &c. . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Congenital . . .	1	1	...	...	...	...	...	...	...	...	...	...	-32
Violence (excluding Suicide) . . .	1	...	...	...	...	...	...	...	...	...	...	1	-32
Suicide . . .	1	...	...	...	...	...	...	...	1	...	...	...	-32
Other Defined Diseases . . .	12	1	...	...	...	...	...	...	1	...	...	...	3-87
Ill-Defined Diseases . . .	1	...	1	...	...	...	...	...	2	2	2	5	-32
TOTAL . . .	40	3	2	...	...	...	3	1	5	8	7	11	12-91

There were three deaths of children under one year of age (2 male, 1 female). The infantile mortality rate (calculated per 1000 births) was 58·82. The average of this rate from 1891 to 1910 was 93. During the past nine years (1911-19) it has been 69. The summary required by the Board of Health is given in the table below:—

### BURGH OF LANGHOLM.

*Return of Infantile Mortality for the Year ending 31st December, 1920, showing net Deaths from stated causes at various ages under 1 year of age.*

CAUSE OF DEATH.	Under 1 week.	1 and under 2 weeks.	2 and under 3 weeks.	3 and under 4 weeks.	Total under 4 weeks.	4 weeks and under 3 months.	3 and under 6 months.	6 and under 9 months.	9 and under 12 months.	Total Deaths under 1 year.
All Causes { Certified . Uncertified .	1 ...	1 ...	... ...	... ...	2 ...	... ...	... ...	1 ...	... ...	3 ...
Smallpox . . . .	...	...	...	...	...	...	...	...	...	...
Chickenpox . . . .	...	...	...	...	...	...	...	...	...	...
Measles . . . . .	...	...	...	...	...	...	...	...	...	...
Scarlet Fever . . . .	...	...	...	...	...	...	...	...	...	...
Whooping-cough . . . .	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup . . . .	...	...	...	...	...	...	...	...	...	...
Erysipelas . . . . .	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis . . . .	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis . . . .	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases . . . . .	...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous) . . . . .	...	...	...	...	...	...	...	...	...	...
Convulsions . . . . .	...	...	...	...	...	...	...	...	...	...
Pneumonia (all forms) . . . . .	...	...	...	...	...	...	...	...	...	...
Bronchitis . . . . .	...	...	...	...	...	...	...	...	...	...
Laryngitis . . . . .	...	...	...	...	...	...	...	...	...	...
Diarrhœa and Enteritis . . . . .	...	...	...	...	...	...	...	...	...	...
Other Digestive Diseases . . . . .	...	1	...	...	1	...	...	...	...	1
Congenital Malformations . . . .	...	...	...	...	...	...	...	...	...	...
Premature Birth . . . . .	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, and Marasmus . . . . .	...	...	...	...	...	...	...	1	...	1
Atelectasis . . . . .	...	...	...	...	...	...	...	...	...	...
Injury at Birth . . . . .	...	...	...	...	...	...	...	...	...	...
Suffocation, Overlying . . . . .	...	...	...	...	...	...	...	...	...	...
Syphilis . . . . .	1	...	...	...	1	...	...	...	...	1
Rickets . . . . .	...	...	...	...	...	...	...	...	...	...
All other causes . . . . .	...	...	...	...	...	...	...	...	...	...
TOTAL . . . . .	1	1	...	...	2	...	...	1	...	3

Net Births in the year—Legitimate, 49.  
Illegitimate, 3.

Net Deaths in the year / Legitimate, 3.  
under one year of age / Illegitimate, 0.

AGES AT DEATH.—Of the 40 deaths,

- 3 or 7.50 per cent. were under 1 year ;
- 2 or 5.00 per cent. were over 1 but under 5 ;
- 3 or 7.50 per cent. were over 25 but under 35 ;
- 1 or 2.50 per cent. were over 35 but under 45 ;
- 5 or 12.50 per cent. were over 45 but under 55 ;
- 8 or 20.00 per cent. were over 55 but under 65 ;
- 7 or 17.50 per cent. were over 65 but under 75 ;
- 11 or 27.50 per cent. were over 75.

Twenty-two notifications were received—nine under the provisions of the Infectious Disease (Notification) Act, 1889, eleven in terms of the Regulations made under Section 78 of the Public Health (Scotland) Act, 1897, and two under provisions of the Infectious Disease (Notification) Act as extended by the Local Authority. They included 6 cases of Scarlet Fever, 2 of Diphtheria, 1 of Erysipelas, 3 of Chicken-pox, 3 of Pneumonia, and 7 of Tuberculosis.

Five of the cases of Scarlet Fever were notified in January and one in March.

Three families were affected, two having one case in each and one having four. Two were found in the peeling stage. All were removed to Hospital, where they made good recoveries. No fatalities occurred. The cases notified, &c., in the past five years have been :—

	1916.	1917.	1918.	1919.	1920.
Cases notified ... ..	82	2	1	2	6
Deaths ... ..	3	0	0	0	0
Sickness-rate per 1000 persons	27.96	0.68	0.34	0.70	2.22
Death-rate per 1000 persons ...	1.04	nil.	nil.	nil.	nil.
Fatality-rate per 1000 cases ...	36.58	nil.	nil.	nil.	nil.

The cases of Diphtheria were notified in October and November. One was removed to Hospital, the other

treated at home. Both made good recoveries. The notifications of the past five years have been :—

	1916.	1917.	1918.	1919.	1920.
Cases notified ... ..	10	18	4	0	2
Deaths ... ..	1	0	1	0	0
Sickness-rate per 1000 persons	3·47	6·17	1·37	...	0·74
Death-rate per 1000 persons	0·35	nil.	0·34	nil.	nil.
Fatality-rate per 1000 cases	100·	nil.	250·	nil.	nil.

Of the seven cases of Tuberculosis, four went to the Westmorland, Bridge-of-Weir, and King Edward Sanatoria, private arrangements being made in the last of these.

A copy of the Infectious Disease Return to the Board of Health appears on page 82.

# BURGH OF LANGHOLM.

**A.—NUMBER OF CASES NOTIFIED TO THE MEDICAL OFFICER OF HEALTH UNDER THE INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.**

DISEASE.	At all Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	Cases removed to Hospital.	Cases not removed to Hospital.
Typhoid or Enteric Fever	...	...	...	...	...	...	...	...	...	...
Typhus Fever	...	...	...	...	...	...	...	...	...	...
Smallpox	...	...	...	...	...	...	...	...	...	...
Scarlet Fever or Searlatina	6	...	1	4	1	...	...	...	6	...
Diphtheria and Membranous Croup	2	...	...	...	1	1	...	...	1	1
Erysipelas	1	...	...	...	...	...	1	...	...	1
Puerperal Fever	...	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...
Relapsing Fever	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	...	...
<b>TOTAL</b>	<b>9</b>	<b>...</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>...</b>	<b>7</b>	<b>2</b>

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**B.—NOTIFIED IN TERMS OF REGULATIONS MADE UNDER SECTION 78 OF THE PUBLIC HEALTH (SCOTLAND) ACT, 1897.**

Ophthalmia Neonatorum	1	...	...	...	...	...	...	...	...	1
Acute Primary Pneumonia	3	...	...	1	...	1	1	...	...	3
Pulmonary Tuberculosis	6	...	...	...	2	4	...	...	4	2
Non-Pulmonary Tuberculosis	1*	...	...	...	...	1	...	...	...	1
<b>GRAND TOTAL</b>	<b>20</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>4</b>	<b>7</b>	<b>2</b>	<b>...</b>	<b>11</b>	<b>9</b>

\*Laryngeal.

**C.—DISEASES TO WHICH THE PROVISIONS OF THE INFECTIOUS DISEASE (NOTIFICATION) ACT HAVE BEEN EXTENDED BY THE LOCAL AUTHORITY.**

Chickenpox	...	...	2	...	1	...	...	...	...	2
------------	-----	-----	---	-----	---	-----	-----	-----	-----	---

**Housing.**—The number of inhabited houses was 781. A representation was made to the Town Council as Local Authority, that the dwelling-house at 88 High Street was in such a state from damp and dilapidation as to be quite unfit for habitation. A Closing Order was issued, against which no appeal was taken. In November the representative of the proprietor was allowed to submit a plan and specification of repairs. After some correspondence, I reported that the proposals would not, in my opinion, make the house a habitable one, and to do this, entire reconstruction or rebuilding would be required. The Council have since refused to approve of the plan and proposals. On 28th December, a number of houses were visited with the Housing Inspector of the Board of Health. Of these, twenty-nine—eight in Kirk Wynd, five in Drove Road, three in Wapping Lane, one in Jouker's Close, four in Back Drove Road, three in High Street, four in Old Charles Street, and one in George Street—showed grave sanitary defects, which placed them very much below the modern standards of habitability. They suffered more or less from damp, insufficient lighting and ventilation, absence or insufficiency of sanitary fittings, insufficient head-room and lack of surrounding air-space. Certain of them were also overcrowded.

The **Common Lodging-house** which existed prior to the war has not been re-opened as such, and there is none in the Burgh at present.

**Tents and Vans.**—The Sanitary Inspector draws attention to the occupation of the Kilngreen by hawkers' vans. In the month of July a nuisance was created by the quantities of horse manure and other refuse due to the keeping and feeding of horses over considerable periods. By Regulations made some time ago, horses should not be kept on the Kilngreen. This regulation should be strictly enforced, both because of the situation of the



Kilngreen within the Burgh, and because it would not appear to be any great hardship to ask the travellers to make arrangements for a field outside in which to keep their horses. Another regulation has in view the prevention of people camping for more than one night because of the want of sanitary conveniences. The same difficulty has arisen in some of the other Burghs in the County, and has been met by providing these conveniences.

**Water Supply.**—The supply is from springs on Terrona, and was specially reported on in 1911 as being likely to be a very satisfactory scheme. With the exception that there has been occasional discolouration after rain, it has proved so. No complaints have reached me during 1920. No samples have been taken for analysis. It would be well that this should be done occasionally.

**Sewage.**—The conditions of the time and the excessive prices have prevented anything being done under the agreement arrived at between the Local Government Board (now Board of Health), County Council, and Town Council for the purification of sewage.

**Slaughter-houses.**—There are three licensed Slaughter-houses, which are kept in fair condition, but a more frequent removal of garbage, &c., appears to be required. A public slaughter-house would, however, be a much-needed improvement, and the provision of one might very well be considered when financial circumstances are a little more favourable.

**Dairies and Cowsheds.**—There are six on the Register. The number of cows kept in them is twenty-eight. The Regulations regarding lime-washing have been observed, but the Sanitary Inspector has had to draw the attention of dairymen to the hindquarters of certain of the cows.

If clean milk is to be produced this is an important matter to be attended to.

**Workshops.**—There are twenty-one on the Register. They include the premises of five bakers, six tailors, three dressmakers, one saddler, two printers, two shoemakers, and two laundries. The Bakehouses have been lime-washed in accordance with the requirements of the Factory and Workshops Act. One tailors' workroom was not satisfactory, and was the subject of a complaint by the Factory Inspector. Cleansing and white-washing has since been carried out.

# LABORATORY.

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County Health Laboratory,  
Dumfries.

To the Medical Officer of Health.

Sir,

I beg to submit a Report on the Bacteriological work done in this Laboratory during the twelve months ending 31st December, 1920.

One thousand seven hundred examinations were made. These are classified in Table I. The increase on the number examined last year is due mainly to a greater number of swabs being sent in to be examined for Diphtheria. There is also an increase on the number of Wasserman tests.

As in last year, the number of milk samples submitted was very small.

The Districts from which samples were submitted are shown in Table II.

## SWABS FOR DIPHTHERIA.

708 swabs were examined, of which 103 were " positive " and 605 " negative."

203 swabs were taken from persons who had been contacts of cases of Diphtheria. In consequence of an outbreak of Diphtheria in Kirkpatrick-Fleming at the beginning of the year, swabs were taken from 37 persons, in the school and at patients' homes. Four " carriers " were found, one being a teacher.

Three negative contacts were examined in Dumfries District, while one positive and five negative contacts were found in relation to a case removed from Dalton.

The greater part of this work, however, had to be done in Sanquhar Burgh, where Diphtheria was prevalent during the latter part of the year. Amongst 86 children examined at the school, one carrier was found, while 3 were detected amongst 57 contacts swabbed in other parts of the Burgh. Eight persons were examined at Kirkconnel, with negative results.

In consequence of an outbreak in Maxwelltown, six persons were examined and one carrier found.

Eight swabs were examined for organisms other than the Diphtheria bacillus.

#### SPUTA FOR TUBERCLE.

These numbered 300, whereof 66 were positive and 234 negative.

Eleven specimens of sputum were examined for other purposes than the detection of Tubercle bacilli.

#### BLOOD FOR WIDAL.

Fifteen agglutinin tests were made. Of these one was positive to *B. Typhosus*, and two to *B. Paratyphosus B.* Ten were negative to the whole *Enterica* group, and the remaining two, tested against *B. Dysenteriae* (Shiga), were both negative.

#### WASSERMAN TESTS.

169 samples of blood and 4 samples of Cerebro-spinal fluid were submitted to this test, making 173 samples in all. These were derived from 143 persons. Among the samples of blood, 71 were positive and 98 negative. Several of those samples were from persons tested in previous years. They are classified according to results and number of previous tests in Table III.

The four specimens of Cerebro-spinal fluid gave negative results in each case.

## ANTHRAX.

The localities from which samples of blood examined for *B. Anthracis* were sent are shown in Table IV.

## MALARIA.

Only 8 blood films were sent in for this examination. Seven were negative. The other showed a heavy infection with the "Benign Tertian" parasite.

## CEREBRO-SPINAL FLUIDS.

Apart from Wasserman's Test, 14 samples of Cerebro-spinal fluid were examined for various reasons—in the majority of cases for cytology and globulin increase.

Meningococci were not found in any of the specimens submitted.

## EXAMINATIONS FOR SPIROCHÆTA PALLIDA.

These numbered 11 only, 3 being positive and 8 negative. In the majority of instances patients do not attend sufficiently early for this examination to be of value.

## EXAMINATIONS FOR GONOCOCCI.

These numbered 52. As was noted last year, the proportion of specimens sent in for this examination from the rural districts is greatly above the proportion of Wassermans from the same areas. It is not likely, however, that this has any bearing on the relative frequency of the two diseases in urban and rural areas respectively.

## EXAMINATIONS OF FÆCES AND URINES.

These will be found classified in Table V.

## MILK SAMPLES.

Only 4 were sent in for bacteriological examination—2 for Tubercle bacilli, which were found in one case but not in the other; 1 in consequence of an outbreak

of Sore Throat in the family using it—nothing abnormal was found ; and 1 for general Sanitary examination. The last-mentioned gave an unsatisfactory result.

#### WATER SAMPLES.

234 samples of water were examined.

Those comprised :—

Samples from Special Water Districts	...	...	56
Samples from Gretna Supply	...	...	151
Samples from other sources	...	...	27

These will be found classified in Tables VI. and VII., except the Gretna samples. For detailed analyses of those, reference may be made to the Quarterly Reports.

The other examinations made do not call for special comment. It may be noted, however, that among the "Miscellaneous" samples are 7 Naso-pharyngeal swabs for meningococci, taken in an hospital for convalescent soldiers. All were negative.

#### VACCINES.

Twenty Vaccines were prepared for practitioners ; 6 contained *Staphylococcus Pyogenes Aureus*, 3 *B. Coli*, 1 *Streptococci*, and the remaining 10 were mixed.

I am, Sir,

Your obedient Servant,

JOHN RITCHIE.



TABLE I.

			1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total.	Total.
Swabs for Diphtheria	{	+	17	3	12	71	103	} 708
Other Swabs ... ..		-	133	64	123	285	605	
		...	...	2	2	4	8	8
Sputa for Tubercle Bacilli	{	+	20	16	17	13	66	} 300
Other Sputa ... ..		-	68	76	42	48	234	
		...	5	1	3	2	11	11
BLOODS :—								
Wasserman's ...	{	+	25	18	9	19	71	} 169
		-	20	35	24	19	98	
Widal's ... ..	{	+	...	...	...	3	3	} 15
		-	2	2	6	2	12	
Anthrax ... ..	{	+	...	2	1	2	5	} 8
		-	2	11	2	4	19	
Malaria ... ..	{	+	...	...	1	...	1	} 8
		-	2	1	2	2	7	
Cultures ... ..	...	...	...	1	...	2	3	3
Other Examinations	...	...	6	4	9	2	21	21
C.S.F. :—								
Wasserman's ...	{	+	...	...	...	...	...	} 4
		-	3	...	1	...	4	
Other Examinations	...	...	5	2	5	2	14	14
Spirochæt. Pallidum	{	+	2	...	...	1	3	} 11
		-	1	3	3	1	8	
Gonococci ... ..	{	+	3	4	5	2	14	} 52
		-	14	7	10	7	38	
Fæces ... ..	...	...	4	2	6	4	16	16
Urine ... ..	...	...	2	10	9	7	28	28
Pus ... ..	...	...	9	11	3	8	31	31
Milk ... ..	...	...	...	2	1	1	4	4
Water ... ..	...	...	56	56	52	70	234	234
Miscellaneous ... ..	...	...	3	21	5	10	39	39
Total ... ..	...	...	402	354	353	591	...	1700

TABLE II.

	County Landward.	Annan Burgh.	Sanguhar Burgh.	Lockerbie Burgh.	Moffat Burgh.	Lanholm Burgh.	Lochnaben Burgh.	Dumfries Burgh.	Maxwelltown Burgh.	Stewartry of Kirkcudbright.	Castle-Douglas Burgh.	Wigtown Burgh.	Dumfries and Galloway Royal Infantry.	Ministry of Pensions.	Total.
Swabs for Diphtheria	478	30	127	...	...	8	3	...	58	...	...	...	4	...	708
Other Swabs	6	...	...	...	...	...	...	...	2	...	...	...	...	...	8
Sputa for Tubercle	151	16	5	7	1	10	2	...	46	...	...	...	21	41	300
Other Sputa	7	...	...	...	...	...	...	...	4	...	...	...	...	...	11
Wassermann's	25	...	4	...	...	1	...	88	17	8	2	1	19	4	169
Widal's	10	...	...	...	...	1	...	...	1	...	...	...	3	...	15
Anthrax	23	1	...	...	...	...	...	...	...	...	...	...	...	...	24
Malaria	3	...	...	...	...	...	...	...	...	...	...	...	...	5	8
Blood Cultures	3	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Other Blood Examinations	16	...	1	...	...	...	...	...	...	...	...	...	3	1	21
C.S.F.—Wasserman's	...	2	...	...	...	...	...	1	1	...	...	...	2	...	4
C.S.F.—Other Examinations	5	...	...	...	...	...	...	2	1	...	...	...	4	...	14
Exams. for Spir. Pallidum	...	...	1	...	...	...	...	4	3	1	1	...	...	1	11
Exams. for Gonococci	23	3	...	...	...	3	...	8	2	...	1	...	11	1	52
Fæces	9	...	1	...	...	...	...	...	1	...	...	...	2	3	16
Urine	16	...	...	...	...	...	...	...	3	...	...	...	4	5	28
Pus	13	1	...	...	...	...	...	...	1	...	...	...	16	...	31
Milk	4	...	...	...	...	...	...	...	...	...	...	...	...	...	4
Waters	233	...	...	1	...	...	...	...	...	...	...	...	...	...	234
Miscellaneous	20	2	...	...	...	...	2	2	...	...	...	...	5	8	39
Total	1045	55	139	8	1	23	7	105	140	9	4	1	94	69	1700

TABLE III.

## WASSERMAN TESTS.

Number of Test.					+	-	Total.
First	...	...	...	...	60	72	132
Second	...	...	...	...	5	14	19
Third	...	...	...	...	4	2	6
Fourth	...	...	...	...	1	5	6
Fifth	...	...	...	...	1	4	5
Sixth	...	...	...	...	...	1	1
Total					71	98	169

TABLE IV.

## BLOOD SPECIMENS FROM SUSPECTED ANTHRAX (BOVINE).

				Positive.	Negative	Total.
Thornhill District	...	...		1	5	6
Dumfries District	...	...		2	3	5
Annan District	...	...	...	2	...	2
Lockerbie District	...	...		...	9	9
Langholm District	...	...		...	1	1
Annan Burgh	...	...	...	...	1	1
Total				5	19	24

TABLE V.

## EXAMINATIONS OF FÆCES AND URINES.

Fæces.	+	-	Total.
General Examination ... ..	...	...	7
Examination for Typhosus Group	...	3	3
Exam. for Dysentery Group ...	1	4	5
Exam. for Animal Parasites ...	1	(Oxyuris Vermicularis).	1
Total ... ..	...	...	16

Urines.	+	-	Total.
Exam. for Tubercle Bacilli ...	...	2	2
Exam. for B. Coli ... ..	5	...	5
Exam. for Bilharzia Hæmatobium	1	...	1
General Bacteriological Exam.	...	...	8
General Chemical Exam. ...	...	...	12
Total ... ..	...	...	28

TABLE VI.

## SPECIAL WATER DISTRICTS (B. COLI CONTENT).

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.
Thornhill ...	+100 c.c.	+ 10 c.c.	+ 10 c.c.	+ 1 c.c.
Moniaive ...	-100 c.c.	+ 1 c.c.	+ 10 c.c.	+100 c.c.
Penpont ...	-100 c.c.	-100 c.c.	+100 c.c.	+100 c.c.
Kirkconnel	+100 c.c.	+ 1 c.c.	+1·0 c.c.	+100 c.c.
Crawick ...	+ 10 c.c.	+ 1 c.c.	+ 10 c.c.	+ 10 c.c.
Dumfries				
Landward	+ 10 c.c.	-100 c.c.	-100 c.c.	+100 c.c.
Blackshaw	-100 c.c.	-100 c.c.	+ 10 c.c.	-100 c.c.
Glencaple ...	+100 c.c.	-100 c.c.	+100 c.c.	+ 10 c.c.
Rockhall ...	-100 c.c.	-100 c.c.	-100 c.c.	+ 10 c.c.
Eaglesfield	-100 c.c.	+ 1 c.c.	+ 10 c.c.	-100 c.c.
Lower				
Annandale	-100 c.c.	-100 c.c.	-100 c.c.	+0·1 c.c.*
Ruthwell				
and Raffles	-100 c.c.	-100 c.c.	+100 c.c.	+100 c.c.
Bankshill	-100 c.c.	-100 c.c.	+100 c.c.	+ 10 c.c.
Ecclefechan	+ 10 c.c.	+100 c.c.	+100 c.c.	-100 c.c.

+ present in.    - absent from.    \* Atypical Forms.

TABLE VII.

## OTHER WATER SAMPLES.

Serial Number.	Count at Room Temperature.	Count at 37° C.	B. Coli Content.
101	8	4	- 100 c.c.
124	9	2	+ 10 c.c.
125	17	3	+ 1 c.c.
126	26	1	+ 10 c.c.
345	200	10	+ 1 c.c.
437	140	20	+100 c.c.
438	10	...	- 100 c.c.
542	120	30	+100 c.c.
634	20	...	+ 10 c.c.
635	10	...	+100 c.c.
663	...	...	+100 c.c.
664	...	...	- 100 c.c.
665	...	...	- 100 c.c.
754	790	78	+ 1 c.c.
756	230	110	+ 1 c.c.
775	20	...	- 100 c.c.
794	Liquefied.	10	+ 10 c.c.
803	50	...	+ 10 c.c.
887	Overgrown.	30	+ 1 c.c.
969	16,000	40	+ 0.1 c.c.
1001	300	20	+100 c.c.
1077	120	...	+ 10 c.c.
1175	110	10	+ 10 c.c.
1302	20	70	+ 0.1 c.c.
1356	9760	130	+100 c.c.
1497	40	20	+100 c.c.
1601	30	10	- 100 c.c.



